

State of California  
The Resources Agency

DEPARTMENT OF WATER RESOURCES  
Division of Operations and Maintenance

# STATE WATER PROJECT OPERATIONS DATA

For the month of:  
**November 2004**

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Governor  
**State of California**

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**The Resources Agency**

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## **MONTHLY HIGHLIGHTS**

The following highlights are activities or actions that impacted State Water Project operations during the month of November 2004.

Statewide precipitation was 65 percent of average for the 2003-2004 water year as of November 30. Statewide runoff was 45 percent of average for the water year. Precipitation percentages are used in this report to express historical and regional comparisons. Additional and more specific information is available via the internet at: <http://cdec.water.ca.gov/snow-rain.html>.

On November 30, total storage in major SWP reservoirs was about 3.31 MAF, compared with about 2.46 MAF at this time in 2003. The average storage in the major SWP reservoirs at the end of November is about 3.36 MAF. The November 30 storage at Lake Oroville was about 2.07 MAF as compared to 1.42 MAF last year. The State's share of San Luis Reservoir storage was about 613 TAF, as compared with 412 TAF at this time last year. On November 30, the combined storage in our southern reservoirs was about 620 TAF, compared with about 635 TAF at this time last year.

Through November, SWP water deliveries for 2004 were about 3,144 TAF. This is a combination of project, transfer, and exchange waters. This is 159 TAF more than delivered during the same period in 2003.

Pumping at Banks was curtailed to about 60 percent of capacity during the first two weeks of the month due to weed build up at Skinner Fish Protection Facility. Pumping was also limited to 5,650 cfs on November 10 for installation of a new trash rake at the Skinner Fish Facility.

On November 10, a 2003 Chevrolet Silverado Pickup truck was pulled from Pool 20 of the California Aqueduct.

On November 17, at 1319, an earthquake of magnitude 4.1 occurred. It was centered 20 miles South of Visalia. No damage to the State Water Project noted after inspections.

On November 19, at 1854, an earthquake of magnitude 3.9 occurred, centered 44 miles NNE of San Luis Obispo. No damage to the State Water Project noted after inspections.

**Table 1. Antelope Lake**

Daily Operation

(in acre-feet except as noted)

Capacity: 22,566 ac-ft

**November 2004**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Outflow in cfs						Computed Inflow (cfs)	
				Regulated Release			Spill	Estimated Evaporation And Seepage	Total Outflow		
				Stream-flow Maint.	Water Supply Contract	Water Right					
Oct 31	4994.20	15,969									
1	4994.13	15,916	-53	20	0	0	0	7	27	0	
2	4994.10	15,894	-22	20	0	0	0	2	22	11	
3	4994.13	15,916	22	20	0	0	0	1	21	32	
4	4994.06	15,863	-53	20	0	0	0	7	27	0	
5	4994.03	15,841	-22	20	0	0	0	1	21	10	
6	4993.99	15,810	-31	20	0	0	0	1	21	5	
7	4993.95	15,780	-30	20	0	0	0	1	21	6	
8	4993.92	15,758	-22	20	0	0	0	1	21	10	
9	4993.87	15,720	-38	20	0	0	0	1	21	2	
10	4993.89	15,735	15	20	0	0	0	1	21	29	
11	4993.84	15,697	-38	20	0	0	0	1	21	2	
12	4993.81	15,675	-22	20	0	0	0	2	22	11	
13	4993.76	15,637	-38	20	0	0	0	1	21	2	
14	4993.73	15,615	-22	20	0	0	0	1	21	10	
15	4993.69	15,585	-30	20	0	0	0	2	22	7	
16	4993.65	15,555	-30	20	0	0	0	2	22	7	
17	4993.61	15,525	-30	20	0	0	0	2	22	7	
18	4993.56	15,488	-37	20	0	0	0	2	22	3	
19	4993.53	15,465	-23	20	0	0	0	2	22	10	
20	4993.48	15,428	-37	20	0	0	0	2	22	3	
21	4993.40	15,369	-59	20	0	0	0	10	30	0	
22	4993.36	15,339	-30	20	0	0	0	0	20	5	
23	4993.32	15,309	-30	20	0	0	0	0	20	5	
24	4993.27	15,273	-36	20	0	0	0	0	20	2	
25	4993.24	15,250	-23	20	0	0	0	0	20	8	
26	4993.20	15,221	-29	20	0	0	0	2	22	7	
27	4993.22	15,236	15	20	0	0	0	2	22	30	
28	4993.18	15,206	-30	20	0	0	0	2	22	7	
29	4993.14	15,177	-29	20	0	0	0	2	22	8	
30	4993.11	15,155	-22	20	0	0	0	2	22	11	
Total cfs-days				---	600	0	0	0	60	660	
Total ac-ft				-814	1,190	0	0	0	119	1,309	
										495	

**Table 2. Frenchman Lake**

Daily Operation

(in acre-feet except as noted)

Capacity: 55,477 ac-ft

**November 2004**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Outflow in cfs						Computed Inflow (cfs)	
				Regulated Release			Spill	Estimated Evaporation And Seepage	Total Outflow		
				Stream-flow Maint.	Water Supply Contract	Water Right					
Oct 31	5561.48	22,799									
1	5561.43	22,754	-45	2	0	0	0	21	23	0	
2	5561.45	22,772	18	2	0	0	0	1	3	12	
3	5561.50	22,817	45	2	0	0	0	0	2	25	
4	5561.50	22,817	0	2	0	0	0	0	2	2	
5	5561.53	22,845	28	2	0	0	0	0	2	16	
6	5561.54	22,854	9	2	0	0	0	0	2	7	
7	5561.52	22,836	-18	2	0	0	0	7	9	0	
8	5561.51	22,827	-9	2	0	0	0	3	5	0	
9	5561.50	22,817	-10	2	0	0	0	3	5	0	
10	5561.55	22,863	46	2	0	0	0	0	2	25	
11	5561.57	22,881	18	2	0	0	0	0	2	11	
12	5561.57	22,881	0	2	0	0	0	0	2	2	
13	5561.58	22,891	10	2	0	0	0	0	2	7	
14	5561.59	22,900	9	2	0	0	0	0	2	7	
15	5561.59	22,900	0	2	0	0	0	0	2	2	
16	5561.55	22,863	-37	2	0	0	0	17	19	0	
17	5561.56	22,872	9	2	0	0	0	1	3	8	
18	5561.56	22,872	0	2	0	0	0	1	3	3	
19	5561.56	22,872	0	2	0	0	0	1	3	3	
20	5561.58	22,891	19	2	0	0	0	1	3	13	
21	5561.58	22,891	0	2	0	0	0	1	3	3	
22	5561.60	22,909	18	2	0	0	0	1	3	12	
23	5561.58	22,891	-18	2	0	0	0	7	9	0	
24	5561.61	22,918	27	2	0	0	0	2	4	18	
25	5561.64	22,946	28	2	0	0	0	1	3	17	
26	5561.66	22,964	18	2	0	0	0	1	3	12	
27	5561.78	23,074	110	2	0	0	0	2	4	59	
28	5561.79	23,083	9	2	0	0	0	1	3	8	
29	5561.83	23,120	37	2	0	0	0	1	3	22	
30	5561.85	23,139	19	2	0	0	0	1	3	13	
Total cfs-days				---	60	0	0	74	135	307	
Total ac-ft				340	119	0	0	149	268	608	

**Table 3. Lake Davis**

Daily Operation  
(in acre-feet except as noted)

Capacity: 84,371 ac-ft

**November 2004**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Outflow in cfs					Computed Inflow (cfs)	
				Regulated Release			Spill	Estimated Evaporation And Seepage		
				Stream-flow Maint.	Water Supply Contract	Water Right				
Oct 31	5762.60	42,425								
1	5762.60	42,425	0	10	0	0	0	0	10	
2	5762.56	42,316	-109	10	0	0	0	45	55	
3	5762.61	42,452	136	10	0	0	0	0	10	
4	5762.60	42,425	-27	10	0	0	0	4	14	
5	5762.58	42,370	-55	10	0	0	0	18	28	
6	5762.57	42,343	-27	10	0	0	0	4	14	
7	5762.57	42,343	0	10	0	0	0	0	10	
8	5762.55	42,288	-55	10	0	0	0	18	28	
9	5762.53	42,234	-54	10	0	0	0	18	28	
10	5762.52	42,207	-27	9	0	1	0	3	13	
11	5762.52	42,207	0	10	0	0	0	0	10	
12	5762.52	42,207	0	10	0	0	0	0	10	
13	5762.52	42,207	0	10	0	0	0	0	10	
14	5762.50	42,152	-55	10	0	0	0	18	28	
15	5762.50	42,152	0	10	0	0	0	0	10	
16	5762.50	42,152	0	10	0	0	0	0	10	
17	5762.48	42,098	-54	10	0	0	0	18	28	
18	5762.47	42,071	-27	10	0	0	0	4	14	
19	5762.45	42,016	-55	10	0	0	0	18	28	
20	5762.43	41,962	-54	9	0	1	0	17	27	
21	5762.41	41,908	-54	10	0	0	0	18	28	
22	5762.40	41,880	-28	10	0	0	0	4	14	
23	5762.38	41,826	-54	10	0	0	0	18	28	
24	5762.37	41,799	-27	10	0	0	0	4	14	
25	5762.39	41,853	54	10	0	0	0	0	10	
26	5762.37	41,799	-54	10	0	0	0	18	28	
27	5762.46	42,043	244	10	0	0	0	0	10	
28	5762.43	41,962	-81	10	0	0	0	31	41	
29	5762.42	41,935	-27	10	0	0	0	4	14	
30	5762.42	41,935	0	9	0	1	0	0	10	
Total cfs-days				---	297	0	3	0	282	
Total ac-ft				-490	589	0	6	0	582	
									335	
									664	
									1,154	

**Table 4. Lake Oroville**

Daily Operation

(in acre-feet except as noted)

Capacity: 3,537, 580 ac-ft

**November 2004**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Outflow					Inflow	
				Hyatt Powerplant Generation 1/	Palermo Canal	Evaporation 2/	Spill	Total Outflow	Hyatt Powerplant Pumpback	Computed Inflow 3/
Oct 31	748.72	1,665,644								
	1	748.48	1,663,417	-2,227	8,305	4	113	0	8,422	0
	2	748.11	1,659,989	-3,428	7,188	4	83	0	7,275	0
	3	747.82	1,657,305	-2,684	8,442	4	69	0	8,515	0
	4	747.54	1,654,717	-2,588	7,058	4	0	0	7,062	0
	5	746.99	1,649,641	-5,076	10,164	4	27	0	10,195	0
	6	747.40	1,653,424	3,783	2,540	4	34	0	2,578	0
	7	747.22	1,651,762	-1,662	5,124	4	41	0	5,169	0
	8	746.83	1,648,167	-3,595	8,970	4	34	0	9,008	0
	9	746.47	1,644,853	-3,314	8,597	4	34	0	8,635	0
	10	746.07	1,641,176	-3,677	8,032	4	14	0	8,050	0
	11	745.87	1,639,339	-1,837	6,251	4	41	0	6,296	0
	12	745.74	1,638,147	-1,192	6,882	4	7	0	6,893	0
	13	745.86	1,639,248	1,101	3,310	4	27	0	3,341	0
	14	745.90	1,639,615	367	4,241	4	88	0	4,333	0
	15	745.86	1,639,248	-367	5,794	4	34	0	5,832	0
	16	745.54	1,636,313	-2,935	8,579	4	27	0	8,610	0
	17	745.14	1,632,649	-3,664	8,806	4	41	0	8,851	0
	18	744.75	1,629,083	-3,566	8,555	4	34	0	8,593	0
	19	744.55	1,627,256	-1,827	7,049	4	7	0	7,060	0
	20	744.74	1,628,991	1,735	3,193	4	115	0	3,312	0
	21	744.41	1,625,978	-3,013	6,302	4	149	0	6,455	0
	22	744.22	1,624,245	-1,733	7,160	4	142	0	7,306	0
	23	743.88	1,621,147	-3,098	8,567	4	40	0	8,611	0
	24	743.54	1,618,053	-3,094	7,760	4	40	0	7,804	0
	25	743.18	1,614,782	-3,271	6,750	4	27	0	6,781	0
	26	743.01	1,613,239	-1,543	6,420	4	0	0	6,424	0
	27	743.07	1,613,783	544	5,008	4	34	0	5,046	0
	28	742.96	1,612,785	-998	5,949	4	74	0	6,027	0
	29	742.36	1,607,348	-5,437	10,275	4	87	0	10,366	0
	30	741.99	1,604,001	-3,347	8,616	5	47	0	8,668	0
Total				-61,643	209,887	121	1,510	0	211,518	0
1/ Includes bypass flows										
2/ Evaporation will be zero for days when there is precipitation or heavy overcast.										
3/ Does not include pumpback.										

1/ Includes bypass flows

2/ Evaporation will be zero for days when there is precipitation or heavy overcast.

3/ Does not include pumpback.

**Table 5. Thermalito Forebay  
Including Diversion Pool and Power Canal**

Capacity: 25,120 ac-ft

Daily Operation  
(in acre-feet except as noted)

**November 2004**

Date	Storage 1/	Storage Change	Inflow			Outflow					Losses (-) And Gains (+)
			Lake Oroville Releases 2/	Kelly Ridge Generation	Thermalito Pumping- Generating Plant Pumpback	Thermalito Pumping- Generating Plant Generation 3/	Butte County 4/	Thermalito Irrigation District	Releases To River 5/	Hyatt Powerplant Pumpback	
Oct 31	24,449										
1	24,053	-396	8,305	512	0	7,852	2	3	1,256	0	-100
2	24,123	70	7,188	512	0	6,321	2	3	1,253	0	-51
3	24,329	206	8,442	512	0	7,404	2	3	1,259	0	-80
4	23,990	-339	7,058	514	0	6,712	2	3	1,261	0	67
5	23,475	-515	10,164	514	0	10,007	2	3	1,256	0	75
6	23,998	523	2,540	514	0	1,129	2	3	1,249	0	-148
7	23,407	-591	5,124	514	0	5,080	2	3	1,256	0	112
8	23,788	381	8,970	514	0	7,734	2	3	1,254	0	-110
9	23,597	-191	8,597	514	0	7,962	2	3	1,257	0	-78
10	24,069	472	8,032	490	0	6,774	2	3	1,259	0	-12
11	24,101	32	6,251	514	0	5,330	3	3	1,256	0	-141
12	24,186	85	6,882	514	0	5,942	3	3	1,257	0	-106
13	24,275	89	3,310	514	0	2,412	3	4	1,249	0	-67
14	23,760	-515	4,241	514	0	3,936	3	4	1,256	0	-71
15	23,593	-167	5,794	514	0	5,268	3	4	1,254	0	54
16	23,916	323	8,579	510	0	7,406	3	4	1,254	0	-99
17	23,175	-741	8,806	504	0	8,514	3	4	1,257	0	-273
18	24,437	1,262	8,555	506	0	6,474	3	4	1,254	0	-64
19	23,238	-1,199	7,049	506	0	7,370	3	4	1,256	0	-121
20	24,040	802	3,193	464	0	1,631	3	4	1,248	0	31
21	23,959	-81	6,302	341	0	5,448	3	4	1,253	0	-16
22	23,826	-133	7,160	506	0	6,358	3	4	1,253	0	-181
23	23,352	-474	8,567	506	0	8,084	3	4	1,254	0	-202
24	24,074	722	7,760	506	0	6,204	3	4	1,251	0	-82
25	23,955	-119	6,750	506	0	6,028	3	4	1,253	0	-87
26	23,990	35	6,420	504	0	5,654	3	4	1,253	0	25
27	23,890	-100	5,008	450	0	4,360	3	4	1,253	0	62
28	23,732	-158	5,949	462	0	5,239	3	4	1,297	0	-26
29	23,928	196	10,275	442	0	9,254	3	4	1,265	0	5
30	23,417	-511	8,616	464	0	8,327	3	4	1,247	0	-10
Total		-1,032	209,887	14,857	0	186,214	80	108	37,680	0	-1,694

1/ Sum of Thermalito Forebay and Diversion Pool.

2/ Sum of releases from Lake Oroville through Hyatt plant, and spill.

3/ Includes Bypass flows at Thermalito.

4/ Includes 1 AF of entitlement water to Del Oro WD and 79 AF to Cal Water.

5/ The sum of the flows from fish barrier dam and the fish hatchery.

**Table 6. Thermalito Afterbay**

Daily Operation

(in acre-feet except as noted)

Capacity: 57,040 ac-ft

**November 2004**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow	Outflow						Losses (-) and Gains (+)	Total Releases to River 2/	
				Thermalito Pumping-Generating Plant Generation 1/	Sutter Butte Canal	Western Canal Lateral	Richvale Canal	Western Canal	Afterbay River Outlet	Thermalito Pumping-Generating Plant Pumpback			
Oct 31	128.06	26,011											
1	128.87	28,500	2,489	7,852	1,525	0	284	968	2,856	0	270	4,112	
2	128.94	28,720	220	6,321	1,835	0	538	966	2,836	0	74	4,089	
3	129.18	29,481	761	7,404	1,904	0	668	966	2,856	0	-249	4,115	
4	129.28	29,801	320	6,712	1,894	0	692	930	2,856	0	-20	4,117	
5	130.39	33,460	3,659	10,007	1,920	0	692	869	2,856	0	-11	4,112	
6	128.82	28,343	-5,117	1,129	1,924	0	692	828	2,836	0	34	4,085	
7	128.41	27,073	-1,270	5,080	1,944	0	692	828	2,836	0	-50	4,092	
8	128.90	28,594	1,521	7,734	1,894	0	657	828	2,856	0	22	4,110	
9	129.36	30,058	1,464	7,962	1,815	0	643	875	2,856	0	-309	4,113	
10	129.64	30,966	908	6,774	1,819	9	643	906	2,856	0	367	4,115	
11	129.37	30,090	-876	5,330	1,829	14	623	908	2,856	0	24	4,112	
12	129.32	29,929	-161	5,942	1,833	26	587	845	2,836	0	24	4,093	
13	128.14	26,252	-3,677	2,412	1,827	34	573	787	2,856	0	-12	4,105	
14	127.37	23,976	-2,276	3,936	1,809	34	573	778	2,836	0	-182	4,092	
15	127.22	23,544	-432	5,268	1,694	30	555	724	2,857	0	160	4,111	
16	127.87	25,443	1,899	7,406	1,646	30	544	672	2,857	0	242	4,111	
17	128.74	28,093	2,650	8,514	1,650	30	516	613	2,857	0	-198	4,114	
18	128.99	28,878	785	6,474	1,670	30	476	589	2,857	0	-67	4,111	
19	129.59	30,802	1,924	7,370	1,634	26	464	591	2,857	0	126	4,113	
20	128.25	26,585	-4,217	1,631	1,615	26	480	589	2,857	0	-281	4,105	
21	128.27	26,646	61	5,448	1,617	26	484	589	2,857	0	186	4,110	
22	128.53	27,442	796	6,358	1,617	26	484	621	2,876	0	62	4,129	
23	129.35	30,025	2,583	8,084	1,619	26	484	643	2,857	0	128	4,111	
24	129.55	30,672	647	6,204	1,601	26	470	649	2,857	0	46	4,108	
25	129.69	31,129	457	6,028	1,598	26	464	651	2,876	0	44	4,129	
26	129.68	31,096	-33	5,654	1,597	26	464	649	2,876	0	-75	4,129	
27	129.34	29,993	-1,103	4,360	1,595	26	464	649	2,876	0	147	4,129	
28	129.14	29,353	-640	5,239	1,595	26	464	649	2,876	0	-269	4,173	
29	130.31	33,190	3,837	9,254	1,595	19	464	651	2,857	0	169	4,122	
30	131.03	35,660	2,470	8,327	1,595	12	476	649	2,876	0	-249	4,123	
Total				9,649	186,214	51,710	528	16,310	22,460	85,710	0	153	123,390

1/ Includes Bypass flows at Thermalito.

2/ The sum of the flows from the fish barrier dam, fish hatchery, and afterbay river outlet.

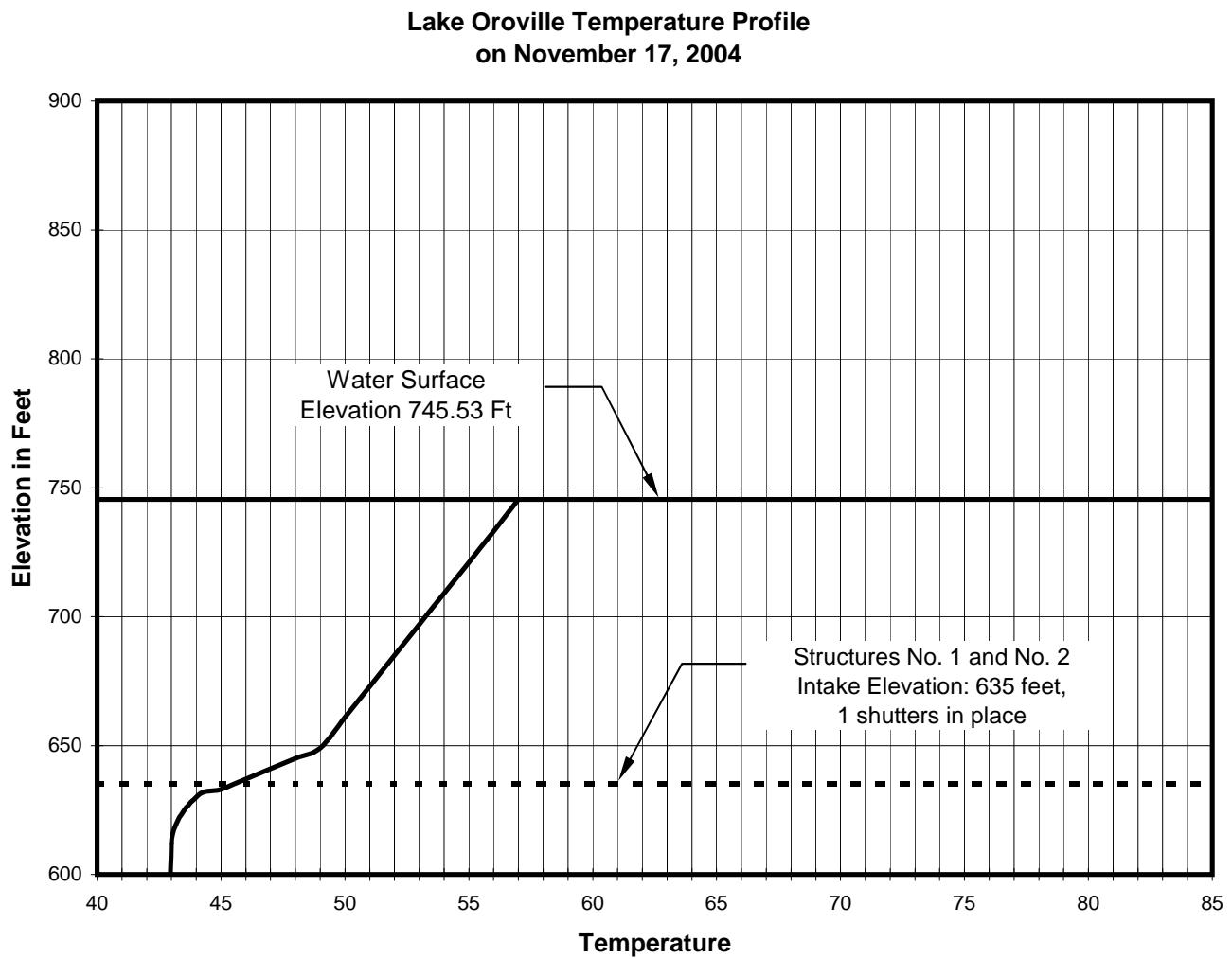
**Table 7. Oroville-Thermalito Complex**

Water Temperature Data

(in degrees Fahrenheit)

November 2004

Date	Mean Daily Temperature	
	Thermalito Afterbay Outlet	Fish Hatchery
1	52	51
2	52	51
3	52	51
4	52	52
5	52	50
6	52	50
7	52	50
8	53	50
9	53	50
10	53	50
11	53	50
12	53	50
13	53	51
14	53	51
15	53	50
16	53	50
17	53	50
18	52	50
19	52	50
20	51	50
21	49	51
22	48	51
23	48	50
24	48	50
25	48	50
26	48	50
27	48	50
28	47	50
29	46	51
30	46	50



Note: Water surface elevations on Table 4 are taken at Oroville Dam at midnight and may differ slightly from those shown on this table which are normally taken at mid-day and upstream from Oroville Dam.

**Table 8. North Bay Aqueduct**  
Delta Field Division, Monthly Deliveries

(In acre-feet)

**November 2004**

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries					
	Beginning and Ending					Table A Amount			Permit		
	No.	Structure	Mile			M & I	Benicia	Vallejo			
1	1	Barker Slough Pumping Plant	0.17	(Into the North Bay Aqueduct)	4,698	24	75	315	1,108		
		Travis Surge Tank	8.78								
			8.80	Solano County Water Agency Travis Turnout	99						
			10.54	Solano County Water Agency Fairfield / Vacaville 24"	315						
				Solano County Water Agency Fairfield / Vacaville 42"	1,108						
			17.00	Solano County Water Agency Central Solano	Stub						
2	3A	Cordelia Forebay	21.23			1/ 502	788	831			
		Cordelia Pumping Plant & Cordelia Spillway	21.30		3,011						
		Napa Pipeline	21.33	Solano County Water Agency Vallejo	1,290						
				Solano County Water Agency Benicia	831						
		Cordelia Surge Tank	23.33								
		Creston Surge Tank Connection	25.65								
3B	2		26.95	Napa County Flood Control & WCD American Canyon 2	157	157	729	4			
			27.27	Napa County Flood Control & WCD American Canyon 3	0						
		Napa Terminal Tank	27.58	City of Napa	729						
			27.60	Napa County Flood Control & WCD American Canyon 1	4						

1/ Napa Co. FC&WCD Table A water through Solano Co.'s turnout in Reach 3A for delivery to American Canyon.

**Table 9. Delta Field Division Plant Data**

(in acre-feet)

**November 2004**

Date	North Bay Aqueduct		California Aqueduct		South Bay Aqueduct			
	Barker Slough Pumping Plant	Cordelia Pumping Plant	Banks Pumping Plant		South Bay Pumping Plant	Del Valle Pumping Plant		Gravity Flow Through Plant Into Aqueduct
			Total	SWP		Into Lake	Into Aqueduct	
1	125	85	8,004	8,004	100	0	0	51
2	174	105	8,336	8,336	128	0	0	53
3	168	103	10,000	10,000	128	0	0	58
4	146	80	9,377	9,377	128	0	0	57
5	165	107	10,765	10,765	128	0	0	66
6	174	122	8,159	8,159	128	0	0	71
7	154	103	9,449	9,449	128	0	0	69
8	152	98	10,164	10,164	128	0	0	56
9	152	93	10,134	10,134	128	0	0	52
10	141	86	9,738	9,738	126	0	0	62
11	173	108	7,037	7,037	103	0	0	60
12	166	112	8,842	8,842	140	0	0	39
13	133	78	8,856	8,856	160	0	0	0
14	147	88	8,872	8,872	177	0	0	0
15	154	99	9,497	9,497	153	0	0	0
16	149	85	9,385	9,385	170	0	0	0
17	178	116	9,290	9,290	160	0	0	0
18	161	102	8,964	8,964	182	0	0	0
19	162	98	6,680	6,680	224	0	0	0
20	146	98	5,777	5,777	224	0	0	0
21	153	97	7,154	7,154	224	0	0	0
22	147	94	5,778	5,778	224	0	0	0
23	171	112	4,837	4,837	208	0	0	0
24	171	117	4,680	4,680	297	0	0	0
25	172	112	2,459	2,459	299	0	0	0
26	158	105	2,989	2,989	383	0	0	0
27	145	103	3,035	3,035	372	0	0	0
28	138	93	3,001	3,001	383	0	0	0
29	163	111	9,113	9,113	383	0	0	0
30	160	101	7,292	7,292	383	0	0	0
Total	4,698	3,011	227,664	227,664	6,099	0	0	694

**Table 10. Clifton Court Forebay**

Daily Operation of Gates

November 2004

Date	Time										Amount of inflow in Acre-Feet
	Opened	Closed									
1	7:10	18:30									8,496
2	8:20	19:30	21:30								8,746
3	---	0:50	8:15	20:45	22:50	---					10,432
4	---	0:30	9:15	22:30	23:30	---					8,600
5	---	1:03	9:50	23:30							10,592
6	0:30	3:05	10:30	18:15	22:10	---					8,548
7	---	0:15	1:45	4:00	11:20	19:00	23:00	---			8,219
8	---	1:00	3:00	5:45	12:02	20:15	23:55	---			9,474
9	---	1:45	4:00	7:32	11:45	21:35					8,735
10	1:30	14:00	17:00	20:31							8,920
11	2:00	8:50	13:25	14:45	17:30	20:16					8,910
12	2:45	9:56	13:30	15:15	18:00	21:20					8,906
13	3:15	11:40	14:05	16:00	18:45	20:50					8,921
14	0:01	1:00	4:30	12:55	14:13	16:45	19:30	20:45			8,915
15	0:01	1:42	5:42	17:30	20:15	21:40					9,519
16	0:01	2:20	7:45	18:30	21:00	22:07					9,514
17	0:01	2:30	7:40	19:45	22:00	22:55					9,505
18	0:01	2:35	8:36	17:10	18:30	21:50	23:15	---			8,921
19	---	2:40	10:00	16:26	21:30	22:50					6,939
20	0:45	4:40	11:20	17:10	23:30	---					5,626
21	---	0:01	2:00	5:20	10:50	16:20					5,948
22	0:06	1:40	3:30	7:35	11:23	12:30	16:00	18:00			5,928
23	1:00	8:15	12:00	13:33	16:30	17:30					4,924
24	1:50	7:15	8:10	9:25	13:20	14:15					4,938
25	3:00	9:01	13:35	14:45	17:30	18:15					3,946
26	5:00	10:40	13:40	15:30							2,968
27	5:45	12:50									2,970
28	5:30	11:50	14:10	16:45	19:00	21:45					5,052
29	7:28	12:40	14:40	17:30	19:30	23:30					6,609
30	7:41	18:00	20:15	23:00							7,896
Total inflow for the month in AF:											227,617

**Table 11. Governor Edmund G. Brown California Aqueduct**  
 Delta Field Division, Monthly Deliveries

(In acre-feet)

**November 2004**

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending					Table A Amount	USBR	Local	Loan Water	Advanced Table A Water		
	No.	Structure	Mile									
1	1	Banks Pumping Plant	3.32		227,664	25	5	1	20	21		
		South Bay Pumping Plant	4.49	Bethany Reservoir Inlet	6,099							
		Check No. 1	5.95									
			8.08	Alameda Co. Zone 7 WA Mountain House Golf Course	0							
	2	Check No. 2	12.01									
			12.47	Musco Olive	25							
	3	Check No. 3	18.29									
			22.16	Tracy Golf & Country Club	0							
	4	Check No. 4	23.99									
		Check No. 5	29.73									
	5	Check No. 6	34.24									
			35.22	Turlock Fruit Company Inflow	0							
2A	7	Check No. 7	39.91									
			42.46	Oak Flat Water District-A	0							
			42.9	Western Hills WD	5							
			43.81	Oak Flat Water District-B	1							
			44.64	Oak Flat Water District-C	0							
	8	Check No. 8	45.97									
			46.18	Oak Flat Water District-D	20							
				Oak Flat Totals:	21	0	0	0	0	21		
		Check No. 9	51.3									
2B	10	Check No. 10	56.86									
	11	Check No. 11	61.4									
	12		66.14	Veteran's Cemetery	1							
		Check No. 12	66.71		223,082							

**Table 12. South Bay Aqueduct**  
Delta Field Division, Monthly Deliveries

(In acre-feet)

**November 2004**

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending					Table A Amount	Purchase Pool A	Purchase Pool B	Local	Recreation		
	No.	Structure	Mile									
1	1	South Bay Pumping Plant	0.00	(into South Bay Aqueduct)	6,099	1						
			3.17		Granite - Vasco Rd. (Temp.)							
			3.18		Oakland Scavenger Zone 7							
		Check No. 1	3.91									
2	3		5.21	Zone 7 Altamont	0	188						
			7.21									
		Check No. 3	9.49		Zone 7 Patterson Inflow Exchange							
4	4			Zone 7 Patterson Project Water	188	1,460						
		Check No. 4	10.68									
		Check No. 5	12.29									
			13.55		Zone 7 Wente #1							
			14.16		Zone 7 Wente #2							
			14.31		Ising Project Water							
		Check No. 6	14.65									
			14.78		Zone 7 Arroyo Mocho Project Water							
		Check No. 7	16.38									
			16.57		Zone 7 Wente #3							
			16.63		Zone 7 Wente #4							
			16.69		Zone 7 Norman Nursery							
			16.70		Zone 7 Concannon Project Water							
5	5	Del Valle Branch Pipeline Junction	18.63	(Pumped into Lake Del Valle) (Flow into South Bay Aqueduct)	694	353				6		
6	6	Deliveries through Del Valle Branch Pipeline	19.20	Arroyo Valle #1 & #2 Project Water Arroyo Valle #1 & #2 Inflow Exchange Lake Del Valle Recreation Zone 7 Wente #5	353 45 6 14	1,411				10		
7	7	La Costa Tunnel	22.50 25.97	ACWD Vallecitos Project Water City of San Francisco San Antonio	586	586				1,720		
8	8	Mission Tunnel	28.97	ACWD - Bayside 1 & 2 Project Water: Inflow Released Inflow Exchange:	1,720	992				992		
9		Santa Clara Pipeline	35.86	S.C.V.W.D. Meter	992							

**Table 13. Lake Del Valle**

Daily Operation

Capacity: 77,106 ac-ft

November 2004

Date	Water Surface Elevation (feet)	Storage	Storage Change	Inflow		Outflow					Precipitation (inches)
				Natural 1/	From South Bay Aqueduct	Arroyo Valle	South Bay Aqueduct	Recreation Deliveries 2/	Evaporation	Total Outflow	
Oct 31	681.07	26,338									
1	680.96	26,281	-57	-1	0	0	51	0	5	56	0.00
2	680.85	26,223	-58	0	0	0	53	0	5	58	0.00
3	680.73	26,161	-62	-1	0	0	58	0	3	61	0.06
4	680.62	26,103	-58	1	0	0	57	0	2	59	0.05
5	680.48	26,031	-72	-4	0	0	66	0	2	68	0.02
6	680.33	25,953	-78	-4	0	0	71	0	3	74	0.00
7	680.18	25,876	-77	-4	0	0	69	0	4	73	0.00
8	680.07	25,819	-57	3	0	0	56	0	4	60	0.00
9	679.98	25,773	-46	6	0	0	52	0	0	52	0.00
10	679.85	25,707	-66	-3	0	0	62	0	1	63	0.14
11	679.76	25,661	-46	16	0	0	60	0	2	62	0.17
12	679.69	25,625	-36	4	0	0	39	0	1	40	0.14
13	679.68	25,620	-5	-2	0	0	0	0	3	3	0.01
14	679.68	25,620	0	3	0	0	0	0	3	3	0.00
15	679.69	25,625	5	6	0	0	0	0	1	1	0.00
16	679.68	25,620	-5	-3	0	0	0	0	2	2	0.00
17	679.67	25,615	-5	-2	0	0	0	0	3	3	0.00
18	679.67	25,615	0	1	0	0	0	0	1	1	0.00
19	679.67	25,615	0	2	0	0	0	0	2	2	0.03
20	679.67	25,615	0	4	0	0	0	0	4	4	0.00
21	679.66	25,610	-5	1	0	0	0	0	6	6	0.00
22	679.64	25,599	-11	-6	0	0	0	0	5	5	0.00
23	679.64	25,599	0	3	0	0	0	0	3	3	0.00
24	679.62	25,589	-10	-7	0	0	0	0	3	3	0.00
25	679.62	25,589	0	4	0	0	0	1	3	4	0.00
26	679.62	25,589	0	3	0	0	0	1	2	3	0.02
27	679.65	25,605	16	19	0	0	0	1	2	3	0.11
28	679.66	25,610	5	9	0	0	0	1	3	4	0.21
29	679.64	25,599	-11	-7	0	0	0	1	3	4	0.00
30	679.64	25,599	0	4	0	0	0	1	3	4	0.00
Total				-739	45	0	0	694	6	84	784
1/ Total inflow from stream gaging station above Lang Canyon and accretions/depletions.											
2/ To East Bay Regional Park District.											
NR=No Records											

**Table 14. Consolidated State-Federal O'Neill Forebay**

Daily Operations

**November 2004**

United States

Department of the Interior

Bureau of Reclamation

Central Valley Project

Capacity 56,430 ac-ft

State of California

The Resources Agency

Department of Water Resources

State Water Project

Date	Water Surface Elevation (in feet)	Storage (ac-ft)	Storage Change (ac-ft)	Inflow (cfs)				Outflow (cfs)				Computed Losses (-) Gains (+) (cfs)
				Pump In 1/	O'Neill Pumping Generating Plant (Pumped)	Gianelli Pumping Generating Plant (Generation)	California Aqueduct	O'Neill Pumping Generating Plant (Generation)	Gianelli Pumping Generating Plant (Pumped)	Dos Amigos Pumping Plant	Deliveries 2/	
Oct 31	218.95	40,457										
1	219.36	41,503	1,046	0	3,481	0	4,481	0	5,658	1,641	9	-127
2	219.75	42,505	1,002	0	3,326	0	3,995	0	6,408	260	9	-139
3	219.87	42,815	310	0	3,225	0	4,973	0	7,115	913	9	-5
4	222.08	48,597	5,782	0	3,236	0	5,307	0	4,035	1,313	1	-279
5	222.54	49,820	1,223	0	3,204	0	4,603	0	5,521	1,560	1	-108
6	220.47	44,374	-5,446	0	3,371	0	4,083	0	8,707	1,289	1	-203
7	219.22	41,145	-3,229	0	3,330	0	4,975	0	8,739	1,063	1	-130
8	219.37	41,528	383	0	3,300	0	5,329	0	7,209	1,006	1	-220
9	219.12	40,889	-639	0	3,328	15	4,149	0	6,480	1,295	1	-38
10	219.99	43,126	2,237	0	3,314	150	5,360	0	5,383	2,279	3	-31
11	219.93	42,971	-155	0	3,422	0	3,562	0	5,341	1,813	4	96
12	221.33	46,626	3,655	0	3,484	0	4,365	0	4,030	1,746	4	-226
13	220.76	45,132	-1,494	0	3,524	0	4,469	0	6,484	2,256	4	-2
14	219.95	43,023	-2,109	0	3,504	0	4,703	0	7,454	1,832	4	20
15	223.05	51,180	8,157	0	3,453	152	4,462	0	3,450	374	4	-127
16	223.14	51,420	240	0	3,550	0	4,585	0	7,043	820	4	-147
17	223.27	51,768	348	0	3,499	0	4,709	0	7,016	1,010	6	-1
18	223.26	51,741	-27	0	3,560	0	4,160	0	5,687	1,601	4	-442
19	223.36	52,009	268	0	3,618	0	3,477	0	5,670	1,754	4	468
20	221.06	45,918	-6,091	0	3,625	0	2,947	0	6,977	2,668	4	6
21	218.41	39,095	-6,823	0	3,587	0	3,509	0	7,440	3,122	4	30
22	219.51	41,887	2,792	0	3,628	0	2,601	0	2,572	2,280	4	35
23	221.17	46,206	4,319	0	3,687	2,805	2,546	0	2,999	3,674	4	-184
24	222.98	50,993	4,787	0	3,687	4,038	2,093	0	3,183	4,144	5	-73
25	222.85	50,646	-347	0	3,642	3,095	1,378	0	3,550	4,660	2	-78
26	223.42	52,169	1,523	0	3,675	1,536	1,067	0	3,194	2,174	2	-140
27	223.40	52,116	-53	0	3,680	1,627	1,387	0	3,023	3,650	2	-46
28	219.67	42,299	-9,817	0	3,666	0	1,458	0	6,442	3,679	2	50
29	222.99	51,019	8,720	0	3,585	2,811	3,975	0	2,570	3,271	2	-132
30	223.29	51,821	802	0	3,529	351	3,759	0	3,925	3,184	2	-124
Total		11,364	0	104,720	16,580	112,467	0	163,305	62,331	107		-2,297
Mean cfs		---	0	3,491	553	3,749	0	5,444	2,078	4		-77
Acre-feet		11,364	0	207,716	32,889	223,082	0	323,916	123,638	213		-4,556

1/ Pump-in located at Mile 79.67R.

2/ Includes 82 AF delivered to DFG at O'Neill Forebay, 1 AF to P&R Cattle, and 130 AF to SLWD.

**Table 15. Consolidated State-Federal San Luis Reservoir**

Daily Operations  
November 2004

United States  
Department of the Interior  
Bureau of Reclamation  
Central Valley Project

State of California  
The Resources Agency  
Department of Water Resources  
State Water Project

Date	Water Surface Elev. (in feet)	Storage (ac-ft)	Storage Change (ac-ft)	Inflow (cfs)	Outflow (cfs)			Computed Losses (-) Gains (+) (cfs)
				Gianelli Pumping Generating Plant (Pumped)	Gianelli Pumping Generating Plant (Generation)	Pacheco Tunnel 1/	Parks and Rec. Del.	
Oct 31	430.75	787,850						
1	431.79	797,474	9,624	5,658	0	174	0	-632
2	433.03	809,000	11,526	6,408	0	176	0	-421
3	434.61	823,769	14,769	7,115	0	177	0	508
4	435.49	832,034	8,265	4,035	0	178	0	310
5	436.28	839,478	7,444	5,521	0	180	0	-1,588
6	438.50	860,516	21,038	8,707	0	187	0	2,087
7	439.94	874,256	13,740	8,739	0	179	0	-1,633
8	441.39	888,166	13,910	7,209	0	178	0	-18
9	442.59	899,734	11,568	6,480	15	193	0	-440
10	443.61	909,606	9,872	5,383	150	176	0	-80
11	444.59	919,125	9,519	5,341	0	171	0	-371
12	445.39	926,921	7,796	4,030	0	173	0	73
13	446.64	939,145	12,224	6,484	0	170	0	-151
14	448.18	954,279	15,134	7,454	0	171	0	347
15	448.75	959,901	5,622	3,450	152	172	0	-292
16	450.08	973,062	13,161	7,043	0	176	0	-232
17	451.24	984,590	11,528	7,016	0	178	0	-1,026
18	452.26	994,764	10,174	5,687	0	199	0	-359
19	453.29	1,005,072	10,308	5,670	0	213	0	-260
20	454.58	1,018,033	12,961	6,977	0	213	0	-230
21	455.90	1,031,351	13,318	7,440	0	213	0	-513
22	456.33	1,035,702	4,351	2,572	0	218	0	-160
23	456.50	1,037,424	1,722	2,999	2,805	216	0	890
24	456.28	1,035,196	-2,228	3,183	4,038	185	0	-83
25	456.32	1,035,601	405	3,550	3,095	201	0	-50
26	456.60	1,038,437	2,836	3,194	1,536	153	0	-75
27	456.82	1,040,668	2,231	3,023	1,627	150	0	-121
28	457.97	1,052,352	11,684	6,442	0	144	0	-407
29	457.87	1,051,334	-1,018	2,570	2,811	152	0	-120
30	458.49	1,057,649	6,315	3,925	351	191	1	-198
Total			269,799	163,305	16,580	5,457	1	-5,245
Mean cfs			---	5,444	553	182	0	-175
Acre-feet			269,799	323,916	32,889	10,828	1	-10,399

1/ Pacheco Tunnel, San Felipe Split; Santa Clara: 10,003 AF, San Benito: 825 AF.

**Table 16. San Luis Field Division Plant Data**

(in acre-feet)

**November 2004**

Date	Dos Amigos Pumping Plant		Gianelli Pumping - Generating Plant				San Felipe Project
	Total Pumping	SWP Pumping 1/ 2/	Total Generation	SWP Generation 1/ 2/	Total Pumping	SWP Pumping 1/ 2/	Federal
1	3,255	3,255	0	0	11,222	6,173	346
2	515	515	0	0	12,710	7,675	350
3	1,810	1,810	0	0	14,113	7,498	352
4	2,604	2,604	0	0	8,003	1,925	353
5	3,095	3,095	0	0	10,950	4,286	358
6	2,557	2,557	0	0	17,271	10,681	370
7	2,108	2,108	0	0	17,334	8,361	355
8	1,996	1,996	0	0	14,299	7,771	353
9	2,569	2,569	0	0	12,853	7,076	383
10	4,521	4,521	0	0	10,677	5,270	350
11	3,597	3,597	0	0	10,594	5,141	339
12	3,463	3,463	0	0	7,993	1,440	343
13	4,475	4,475	0	0	12,861	7,130	337
14	3,633	3,633	0	0	14,785	3,523	340
15	742	742	630	630	6,843	2,076	342
16	1,626	1,626	0	0	13,970	7,491	349
17	2,003	2,003	0	0	13,917	7,424	354
18	3,176	3,176	0	0	11,281	4,803	395
19	3,480	3,480	0	0	11,247	4,802	423
20	5,292	5,292	0	0	13,839	7,787	422
21	6,193	6,193	0	0	14,757	1,965	423
22	4,522	4,522	0	0	5,101	-84	432
23	7,288	7,288	5,564	5,564	5,948	-38	428
24	8,219	8,219	8,010	8,010	6,314	-184	367
25	9,244	9,244	6,139	6,139	7,042	506	398
26	4,313	4,313	3,046	3,046	6,335	-88	303
27	7,239	7,239	3,228	3,228	5,997	-55	297
28	7,298	7,298	0	0	12,777	-119	286
29	6,489	6,489	5,576	5,576	5,098	-95	302
30	6,316	6,316	696	696	7,785	-159	378
<b>Total</b>	<b>123,638</b>	<b>123,638</b>	<b>32,889</b>	<b>32,889</b>	<b>323,916</b>	<b>119,982</b>	<b>10,828</b>

1/ Negative values may appear in SWP columns and indicate a mismatch of scheduled CVP energy and actual pumping; adjustments to SWP water shares are made to balance the mismatch.

2/ Provisional, subject to change.

**Table 17. Consolidated State-Federal Los Banos Reservoir**

Daily Operations  
November 2004

United States  
Department of the Interior  
Bureau of Reclamation  
Central Valley Project

State of California  
The Resources Agency  
Department of Water Resources  
State Water Project

Capacity 34,560 ac-ft

Date	Water Surface Elev. (in feet)	Storage (ac-ft)	Storage Change (ac-ft)	Estimated Inflow (cfs)	Estimated Outflow (cfs)		Computed Losses (-) Gains (+) (ac-ft)
					Spill	Outlet	
Oct 31	323.41	18,570					
1	323.40	18,566	-4	0	0	0	-4
2	323.40	18,566	0	0	0	0	0
3	323.38	18,557	-9	0	0	0	-9
4	323.38	18,557	0	0	0	0	0
5	323.39	18,562	5	3	0	0	-1
6	323.38	18,557	-5	0	0	0	-5
7	323.37	18,553	-4	0	0	0	-4
8	323.37	18,553	0	0	0	0	0
9	323.37	18,553	0	0	0	0	0
10	323.37	18,553	0	0	0	0	0
11	323.40	18,566	13	7	0	0	-1
12	323.40	18,566	0	0	0	0	0
13	323.40	18,566	0	0	0	0	0
14	323.40	18,566	0	0	0	0	0
15	323.39	18,562	-4	0	0	0	-4
16	323.38	18,557	-5	0	0	0	-5
17	323.37	18,553	-4	0	0	0	-4
18	323.37	18,553	0	0	0	0	0
19	323.37	18,553	0	0	0	0	0
20	323.37	18,553	0	0	0	0	0
21	323.35	18,544	-9	0	0	0	-9
22	323.33	18,535	-9	0	0	0	-9
23	323.33	18,535	0	0	0	0	0
24	323.32	18,530	-5	0	0	0	-5
25	323.32	18,530	0	0	0	0	0
26	323.31	18,526	-4	0	0	0	-4
27	323.30	18,522	-4	0	0	0	-4
28	323.27	18,508	-14	0	0	0	-14
29	323.27	18,508	0	0	0	0	0
30	323.26	18,504	-4	0	0	0	-4
Total			-66	10	0	0	-86
Mean cfs			---	0	0	0	---
Acre-feet			-66	20	0	0	-86

**Table 18. Consolidated State-Federal Little Panoche Reservoir**

Daily Operations

**November 2004**

United States

Department of the Interior

Bureau of Reclamation

Central Valley Project

State of California

The Resources Agency

Department of Water Resources

State Water Project

Capacity: 5,580 ac-ft

Date	Water Surface Elev. (in feet)	Storage (ac-ft) 1/	Storage Change (ac-ft) 1/	Estimated Inflow (cfs)	Estimated Outflow (cfs)		Computed Losses (-) Gains (+) (ac-ft) 1/
					Spill	Outlet	
Oct 31	599.50	659					
1	599.50	659	0	0	0	0	0
2	599.55	661	2	1	0	0	0
3	599.60	661	0	0	0	0	0
4	599.60	664	3	2	0	0	-1
5	599.65	666	2	1	0	0	0
6	599.60	664	-2	0	0	0	-2
7	599.60	664	0	0	0	0	0
8	599.70	669	5	3	0	0	-1
9	599.70	669	0	0	0	0	0
10	599.70	669	0	0	0	0	0
11	599.70	669	0	0	0	0	0
12	599.80	674	5	3	0	0	-1
13	599.90	679	5	3	0	0	-1
14	599.90	679	0	0	0	0	0
15	599.90	679	0	0	0	0	0
16	599.95	681	2	1	0	0	0
17	599.90	679	-2	0	0	0	-2
18	599.90	679	0	0	0	0	0
19	599.90	679	0	0	0	0	0
20	599.90	679	0	0	0	0	0
21	599.95	681	2	1	0	0	0
22	600.05	686	5	3	0	0	-1
23	600.05	686	0	0	0	0	0
24	600.10	689	3	2	0	0	-1
25	600.10	689	0	0	0	0	0
26	600.10	689	0	0	0	0	0
27	600.10	689	0	0	0	0	0
28	600.15	691	2	1	0	0	0
29	600.20	694	3	2	0	0	-1
30	600.20	694	0	0	0	0	0
Total			35	23	0	0	-11
Mean cfs			---	1	0	0	---
Acre-feet			35	46	0	0	-11

1/ Not available on a daily basis

**Table 19a. Governor Edmund G. Brown California Aqueduct**  
 San Luis Field Division, Monthly Deliveries

(In acre-feet)

				Turnout	Total Diversions	November 2004			
Reach No.	Operating Pool		Deliveries						
	Beginning and Ending		USBR	CVC	DWR Recreation	USBR Recreation			
No.	Structure	Mile							
2B	12	Check No. 12	66.71		223,082				
3A	San Luis Reservoir			Department of Parks and Recreation	1	10,003	1		
				San Felipe Division Santa Clara Water District	10,003				
				San Felipe Division San Benito Water District	825				
3	O'Neill Forebay	70.85	Department of Parks and Recreation			130	1	37	
			Cattle Program	1					
			Department of Fish & Game	82					
		70.91 Thru 85.08	San Luis Water District	130		130	45		
			(Floodwater Inflow)	0					
			Reach 3 Subtotal:	213		130	0	46	
		86.73		123,638				37	
4	14		89.03			300	300		
			Thru 94.06	San Luis Water District	300				
			89.66				105		
			Thru 89.67	Pacheco Water District	105				
			89.68				32		
			89.70	Panoche Water District	32				
			City of Dos Palos	72			72		
			Check No. 14	95.06					
		15	98.15			102	102		
			Thru 104.20	San Luis Water District	102				
			96.15				41		
			Thru 102.64	Panoche Water District	41				
			(Floodwater Inflow)	0					
			102.64	Broadview Water District	1	1	170		
			105.22						
			Thru 108.64	Westlands Water District	1,244				
			Check No.15	108.50					
			San Felipe Division Total:	10,828		10,828	0	0	
			Pacheco Water District Total:	105		105	0	0	
			Broadview Water District Total:	1		1	0	0	
			City of Dos Palos Total:	72		72	0	0	
			SLWD Reach 4 Subtotal:	532		532	0	0	
			Panoche Water District Total:	73		73	0	0	
			SLWD Total:	532		532	0	0	
			Westlands WD Reach 4 Subtotal:	1,244		1,074	170	0	

**Table 19b. Governor Edmund G. Brown California Aqueduct**

San Luis Field Division, Monthly Deliveries (Continued)

(In acre-feet)

**November 2004**

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries							
	Beginning and Ending					USBR	Transfer	DWR Recreation	USBR Recreation				
	No.	Structure	Mile										
5	16		110.52	(Reverse flow, Kings River)	0	1,647	3/ 400						
			Thru	Westlands Water District	1,647								
			122.05	Department of Fish and Game	0								
		Check No. 16	122.07										
	17		124.18	Westlands Water District	921	521							
			Thru										
		132.74											
		Check No. 17	132.95										
	18		133.81	Westlands Water District	1,503	1,503	328						
			Thru										
		142.61											
		Pleasant Valley Pumping Plant	143.16	Westlands Water District	1,265								
			143.16	City of Coalinga	328								
		Check No. 18	143.23										
				Westlands WD Reach 5 Subtotal:	5,336	4,936	400	0	0				
6	19		145.26	Westlands Water District	2,175	2,175	1/ 115						
			Thru										
			151.19	Westlands Water District Lemoore Naval Air Station	115								
		Check No. 19	155.64										
				Westlands WD Reach 6 Subtotal:	2,175	2,175	0	0	0				
7	20		156.34	City of Huron	70	70	2/ 2						
			156.40	SWP Construction @ Lat. 24R	2								
			Thru	Westlands Water District	1,891								
		163.69											
		Check No. 20	164.69										
	21		164.79	City of Avenal	198	198	351						
			167.04	Westlands Water District	351								
			Thru										
		171.67											
		Check No. 21	172.40		110,422								
				Reach 7 Total:	2,510	2,510	0	0	0				
				SWP Construction	2	0	2						
				Westlands WD Total:	10,997	10,427	570	0	0				
				City of Coalinga Total:	328	328	0	0	0				
				Kings County to Lemoore N.A.S. through Westlands @29L & 30L	115	0	115						
				City of Huron Total:	70	70	0	0	0				
				City of Avenal Total:	198	198	0	0	0				
				Total San Luis Field Division Deliveries:	23,405	22,634	687	47	37				

1/ Westlands Water District transferred 115 AF from County of Kings to Lemoore N.A.S.

2/ SWP water pumped at Banks and delivered through WWD turnout for construction at Arroyo Pasajero.

3/ Common landowner transfer, Hansen to Vista Verde and Newton.

**Table 20. Consolidated State-Federal San Luis Canal 1/**

Daily Operations  
November 2004

United States  
Department of the Interior  
Bureau of Reclamation  
Central Valley Project

State of California  
The Resources Agency  
Department of Water Resources  
State Water Project

Date	Storage In Canal (ac-ft)	Storage Change (ac-ft)	Inflow (cfs)		Outflow (cfs)				Computed Losses (-) Gains (+) (cfs)
			Non- Project	Dos Amigos Pumping Plant	San Luis Water District 2/	Panoche Water District	Westlands Water District 3/	Flow Past Check 21	
Oct 31	29,261								
1	29,460	199	0	1,641	15	0	162	1,423	59
2	28,257	-1,203	0	260	15	0	162	646	-44
3	28,639	382	0	913	18	1	164	481	-56
4	28,679	40	0	1,313	9	0	143	995	-146
5	28,912	233	0	1,560	9	0	143	1,243	-48
6	29,150	238	0	1,289	9	0	143	995	-22
7	29,261	111	0	1,063	9	0	143	853	-2
8	28,817	-444	0	1,006	9	0	143	1,060	-18
9	28,502	-315	0	1,295	9	0	143	1,310	8
10	28,917	415	0	2,279	10	2	144	1,921	7
11	28,886	-31	0	1,813	13	2	162	1,687	35
12	28,521	-365	0	1,746	13	2	162	1,786	33
13	28,928	407	0	2,256	13	2	162	1,862	-12
14	29,543	615	0	1,832	13	2	162	1,286	-59
15	29,231	-312	0	374	13	2	162	326	-28
16	28,390	-841	0	820	13	2	162	1,075	8
17	28,242	-148	0	1,010	18	2	165	830	-70
18	27,563	-679	0	1,601	5	2	211	1,727	2
19	27,735	172	0	1,754	5	2	211	1,449	0
20	28,694	959	0	2,668	5	2	211	1,868	-99
21	28,598	-96	0	3,122	5	2	211	2,929	-23
22	27,171	-1,427	0	2,280	5	2	211	2,685	-96
23	27,599	428	0	3,674	5	2	211	3,232	-8
24	28,665	1,066	0	4,144	6	2	211	3,278	-109
25	29,665	1,000	0	4,660	8	1	300	3,837	-10
26	27,776	-1,889	0	2,174	8	1	300	2,820	3
27	28,357	581	0	3,650	8	1	300	2,946	-102
28	27,451	-906	0	3,679	8	1	300	3,754	-73
29	27,794	343	0	3,271	8	1	300	2,444	-345
30	27,070	-724	0	3,184	8	1	300	2,921	-319
Total		-2,191	0	62,331	292	37	5,904	55,669	-1,533
Mean cfs		---	0	2,078	10	1	197	1,856	-51
Acre-feet		-2,191	0	123,638	579	73	11,711	110,422	-3,044

1/ San Luis Canal includes Pools 14 through 21 of the California Aqueduct.

2/ Includes 104 AF AG & 1 AF M&I to Pacheco W.D. and 72 AF to the City of Dos Palos, and 402 Af to San Luis Water District.

3/ Includes 70 AF to the City of Huron, 198 AF to the City of Avenal, 328 AF to the City of Coalinga, 115 AF to Lemoore N.A.S. @ 30L, 1 AF to Broadview W.D., 2 AF to SWP construction @ 24R, and 10,997 AF to Westlands WD.

**Table 21. San Joaquin Field Division Plant Data**

(in acre-feet)

**November 2004**

23

Date	Coastal Aqueduct					California Aqueduct			
	Las Perillas Pumping Plant	Badger Hill Pumping Plant	Devil's Den Pumping Plant	Bluestone Pumping Plant	Polonio Pass Pumping Plant	Buena Vista Pumping Plant	Teerink Pumping Plant	Chrisman Pumping Plant	Edmonston Pumping Plant
1	83	83	67	52	68	2,871	3,118	3,005	3,065
2	151	151	92	84	93	1,927	2,273	2,117	2,183
3	93	93	65	61	67	1,679	1,833	1,803	1,749
4	97	97	89	83	91	2,580	2,820	2,676	2,766
5	99	99	77	73	78	2,859	2,899	2,826	2,766
6	110	110	92	85	92	2,577	2,809	2,710	2,568
7	89	89	95	84	95	2,167	2,262	2,219	2,336
8	46	46	42	39	44	3,332	3,900	3,791	3,662
9	13	13	25	25	32	3,384	3,637	3,504	3,449
10	1	1	7	6	7	3,954	4,113	4,002	4,029
11	0	0	0	0	0	3,829	4,119	4,040	3,958
12	0	0	0	0	0	4,011	4,238	4,122	4,116
13	34	34	0	0	0	4,494	4,665	4,515	4,491
14	44	44	1	1	1	3,801	4,036	3,903	3,864
15	44	44	1	1	1	897	1,167	1,104	881
16	41	41	1	1	1	1,674	1,851	1,846	1,995
17	55	55	0	0	0	1,879	2,151	2,044	1,830
18	83	83	0	0	0	2,943	3,197	3,088	3,143
19	115	115	1	1	1	2,645	2,974	2,842	2,614
20	96	96	27	20	22	3,445	3,649	3,431	3,599
21	77	77	48	44	48	5,177	5,601	5,436	5,286
22	77	77	44	40	46	5,418	5,735	5,542	5,594
23	103	103	47	42	49	5,719	6,037	5,786	5,886
24	55	55	50	47	57	5,858	6,112	5,906	5,914
25	81	81	73	66	73	7,222	7,521	7,301	7,386
26	121	121	68	63	71	5,509	5,880	5,702	5,698
27	80	80	58	52	60	5,803	6,225	6,059	6,074
28	120	120	60	58	64	7,250	7,755	7,404	7,413
29	130	130	51	48	56	4,922	5,463	5,167	5,158
30	72	72	71	65	71	5,501	5,830	5,423	5,465
Total	2,210	2,210	1,252	1,141	1,288	115,327	123,870	119,314	118,938

**Table 22a. Governor Edmund G. Brown California Aqueduct**

San Joaquin Field Division, Monthly Deliveries

(In acre-feet)

**November 2004**

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending					Table A Amount	USBR	Recovery of Pump In	Purchase Pool A	Dry Year Purchase		
	No.	Structure	Mile									
7	21	Check No. 21	172.40		110,422							
8C	22		172.66	Empire West Side Irrig. Dist. TL - A	30	30	1,476					
				County of Kings TL - A	0							
				TLBWSA TL-A	1,476							
				175.18 DRWD - 1	27							
8D				177.54 DRWD - 1B	0	92	5					
				180.64 TLBWSA - C	0							
				180.65 DRWD - 1A	92							
				182.99 DRWD - 2	5							
31A				183.00 Tulare Lake Basin WSD TL - B	0	1						
				184.00 DRWD - Paramount	1							
				184.63 Coastal Branch	2,210							
				184.78 Dudley Ridge Water Dist. DRWD - 3	0							
8D				Dudley Ridge Reach 8D Total:	125	125	0	0	0	0		
				Tulare Lake Basin WSD Total:	1,476							
		Check No. 22	184.82									
9	23			189.69 Kern County Water Agency Lost Hills Water Dist. - 1	114	0	0	114	0	0		
				191.18 Kern County Water Agency Lost Hills Water Dist. - 2	2							
				194.22 Kern County Water Agency Lost Hills Water Dist. - 3	0							
				196.40 Kern County Water Agency Berrenda Mesa - 2	0							
				196.75 Kern County Water Agency Lost Hills Water Dist. - 4	0							
				K.C.W.A. Reach 9 Subtotal:	116							
				Check No. 23	197.05							
10A	24		201.24	Kern County Water Agency Lost Hills Water Dist. - 7	17	5,095	5,095	17	12	11		
				202.05 Kern County Water Agency Lost Hills Water Dist. - 5	12							
				204.69 Kern County Water Agency Lost Hills Water Dist. - 6	0							
				205.26 Kern County Water Agency Lost Hills Water Dist. - 8	3							
	25		207.94	Kern County Water Agency Belridge Water Storage Dist. - 1A	11							
				209.78 Kern National Wildlife Refuge USBR BV-1B	5,095							
					0							
				209.80 KCWA Semitropic WSD	0							
				KCWA Semitropic WSD Penstocks	0							
				USBR Total:	5,095							
				K.C.W.A. Reach 10A Subtotal:	43							

**Table 22b. Governor Edmund G. Brown California Aqueduct**  
 San Joaquin Field Division, Monthly Deliveries (Continued)

(In acre-feet)

**November 2004**

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending					Table A Amount	USBR	Recovery of Pump In	Purchase Pool B	MWD Ent.		
	No.	Structure	Mile									
11B	25	210.75	Kern County Water Agency Belridge - 2	0								
		214.11	Kern County Water Agency Belridge - 3	0								
		216.62	Kern County Water Agency Belridge - 4	0								
		217.13	Kern County Water Agency Belridge - 5	261				261				
			Kern County Water Agency Belridge - 5D	84				84				
		Check No. 25	217.79									
			K.C.W.A. Reach 11B Subtotal:	345		0	0	345	0	0		
12D	26	219.58	Kern County Water Agency Belridge - 6	0								
			Kern County Water Agency West Kern - 3	349				349				
		Check No. 26	224.92									
12E	27	230.37	Kern County Water Agency Buena Vista - 6	0								
		Check No. 27	231.73									
	28	235.75	Kern County Water Agency Buena Vista - 2	0								
			Kern County WA CVC	0								
			DRWD CVC	0								
			County of Kings	0								
			Lower Tule River	0								
			Tulare Lake Basin WSD	0								
			Pixley ID	0								
			Hacienda									
			DWR Wells	0								
		Check No. 28	238.11									
			1/ Arvin Edison Total:	0		0	0	0	0	0		
			Reach 12E Subtotal:	0		0	0	0	0	0		
13B	29	238.19	Kern Water Bank Inflow	0								
			Kern Water Bank Outflow	0								
		241.02	Kern River Intertie (inflow)	0								
		242.85	KCWA Buena Vista WSD - 7	0								
			KCWA Buena Vista WSD - 5	0								
		243.09	Kern County Water Agency Buena Vista - 3	0								
		Check No. 29	244.54	Buena Vista WSD	0							
	30	249.85	Kern County Water Agency Buena Vista - 4	0								
		Buena Vista Pumping Plant	250.99		115,327							
			K.C.W.A. Reach 13B Subtotal:	0		0	0	0	0	0		
14A	31	254.47	Kern County Water Agency West Kern - 2	0								
		256.11	Kern County Water Agency Wheeler Ridge-Maricopa - 2	10				10				

1/ Arvin Edison Contractors include Rag Gulch WD, Kern-Tulare WD, Fresno County, Hills Valley ID, Tri Valley WD, Tulare County, Lower Tule River ID, and Pixley ID.

**Table 22c. Governor Edmund G. Brown California Aqueduct**

San Joaquin Field Division, Monthly Deliveries (Continued)

(In acre-feet)

**November 2004**

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending					Table A Amount	Purchase Pool A	Recovery of Pump In	Exchange	MWD Ent.		
	No.	Structure	Mile									
14A	31	Check No. 31	256.14									
	32		258.61		Kern County Water Agency			18				
			260.44		Wheeler Ridge-Maricopa - 3							
		Check No. 32	261.72		Kern County Water Agency			135				
					Wheeler Ridge-Maricopa - 4							
14B				KCWA Reach 14A Subtotal:		163	0	0	163	0	0	
	33		264.42		Kern County Water Agency			282				
			266.91		Wheeler Ridge-Maricopa - 5							
	34	Check No. 33	267.36		Kern County Water Agency			99				
			270.24		Wheeler Ridge-Maricopa - 6							
		Check No. 34	271.27		Kern County Water Agency			326				
					Wheeler Ridge-Maricopa - 7							
14C	35		272.39		Kern County Water Agency			323				
					Wheeler Ridge-Maricopa - 8							
			276.09		Kern County Water Agency			163				
					Wheeler Ridge-Maricopa - 9							
15A	36		Reach 14C Total:		486	0	0	486	0	0	0	
			278.13			123,870						
			279.02		Kern County Water Agency			9				
			280.06		Wheeler Ridge-Maricopa - 9A							
					Kern County Water Agency			728				
					Wheeler Ridge-Maricopa - 10							
16A	37		Reach 15-A Total:		737	0	0	737	0	0	0	
			280.36			119,314						
			282.06		Kern County Water Agency			0				
			283.95		Wheeler Ridge-Maricopa - 11							
			285.01		Kern County Water Agency			12				
			286.39		Wheeler Ridge-Maricopa - 12							
			287.06		Kern County Water Agency			2				
					Wheeler Ridge-Maricopa - 13							
			287.09									
17E	38		287.62		Kern County Water Agency			2				
			290.21		Wheeler Ridge-Maricopa - 13B							
			291.26		Kern County Water Agency			5				
			293.07		Wheeler Ridge-Maricopa - 14							
					Kern County Water Agency			0				
					Tehachapi Cummings CWD							
	40		K.C.W.A. Reach 16A Subtotal:		42	0	0	42	0	0	0	
			293.45			118,938						

**Table 23. Governor Edmund G. Brown California Aqueduct**

San Joaquin Field Division, Monthly Deliveries (Coastal Branch)

(In acre-feet)

**November 2004**

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending					Table A Amount	Purchase Pool A	Recovery of Pump In	Exchange	Purchase Pool B		
	No.	Structure	Mile									
31A	C-1	Coastal Branch Control	0.02	Green Valley Water District	2,210							
		Las Perillas Pumping Plant	1.16		2,210							
	C-2		3.79		0							
		Badger Hill Pumping Plant	4.27		2,210							
	C-3	Coastal Check No. 3	7.21									
	C-4		9.34		0							
		Coastal Check No. 4	9.34									
	C-5	Coastal Check No. 5	12.20									
	C-6		13.30	Kern County Water Agency Berrenda Mesa - 3	6							
			14.83	Kern County Water Agency Berrenda Mesa - 1	420							
				Kern County Water Agency Berrenda Mesa - PO	0							
		Devil's Den Pumping Plant	14.86		1,252							
				K.C.W.A. Reach 31A Subtotal:	426	0	0	426	0	0		
				K.C.W.A. Total:	3,414	0	0	3,414	0	0		
33A	C-7	Bluestone Pumping Plant	19.05		1,141							
	C-8	Polonio Pass Pumping Plant	26.54		1,288							
	C-9	Tank Site 1	27.81	(CCWA) Polonio Pass Treatment Plant								
	C-10	Shandon T.O.	38.23	Santa Barbara County (CCWA)	1,129		1,129	108	0	0		
		Tank Site 2	58.63	Central Coast:	0							
34	C-11	Chorro Valley T.O.	69.31	San Luis Obispo County (CCWA)	108							
		Energy Dissipater	78.12									
		Lopez T.O.	85.86	SLOCFC & WCD	0							
35	C-12			CCWA Total:	1,237							
		Guadalupe T.O.	102.70	SBCFC & WCD	0							
		Santa Maria T.O.	107.43	SBCFC & WCD	0							
		So. Cal. Water T.O.	109.20	SBCFC & WCD	0							
38				SBCFC & WCD Total:	0	0	0	0	0	0		
		Tank Site 5	115.42									

**Table 24. Southern Field Division Plant Data**

(in acre-feet)

November 2004

Date	West Branch					East Branch											
	Oso Pumping Plant	Warne Powerplant		Castaic Powerplant		Alamo Powerplant			Pearblossom Pumping Plant	Mojave Siphon Powerplant			Devil Canyon Powerplant Generation	Cherry Valley	Green Spot	Crafton Hills	
		Generation	Bypass	Generation 1/	Pumpback 1/	Generation	Bypass Through Plant	Cottonwood Chute		Generation	Leakage	Bypass Flume					
28	1	586	6	0	2,659	1,374	2,192	0	261	2,072	1,957	0	0	1,954	8	13	3
	2	0	0	0	1,749	1,666	2,093	0	63	2,083	2,212	0	0	1,896	4	12	12
	3	0	0	0	2,134	2,101	1,721	0	41	1,711	1,804	0	0	1,727	5	12	12
	4	0	0	0	2,228	1,592	2,290	0	379	2,476	2,308	0	0	2,405	5	13	12
	5	0	0	0	1,507	898	2,234	0	548	2,659	2,870	0	0	2,715	2	14	12
	6	0	0	0	139	1,123	2,287	0	461	2,591	2,733	0	0	2,626	0	0	0
	7	0	0	0	1,773	2,226	2,430	0	2,730	2,115	0	0	2,397	0	0	0	
	8	582	1,017	0	2,895	1,971	2,681	0	411	2,349	2,730	0	0	2,796	0	0	0
	9	747	1,172	0	2,698	1,558	2,434	0	275	2,421	2,467	0	0	2,744	0	0	0
	10	854	1,130	0	2,614	1,578	2,658	0	474	2,939	2,980	0	0	2,971	0	0	0
	11	851	884	0	2,428	1,542	2,635	0	508	2,898	2,920	0	0	2,858	0	0	0
	12	1,015	1,021	0	2,261	882	2,791	0	260	3,039	3,105	0	0	2,984	0	0	0
	13	1,015	1,036	0	1,442	0	3,156	0	275	3,410	3,416	0	0	2,555	0	0	0
	14	2,238	1,007	0	195	0	1,705	0	31	1,325	1,575	0	0	2,555	0	0	0
	15	0	0	0	0	0	1,037	0	10	982	369	0	0	2,851	3	0	0
	16	0	0	0	0	0	1,935	0	0	1,515	1,561	0	0	2,807	0	0	0
	17	0	580	0	0	0	1,828	0	0	1,877	1,996	0	0	2,920	5	8	8
	18	0	66	0	0	0	3,084	0	0	2,930	2,826	0	0	2,947	4	0	0
	19	0	212	0	0	0	2,687	0	0	2,399	2,471	0	0	3,133	4	16	16
	20	0	166	0	0	0	3,449	0	114	3,862	3,465	0	0	2,782	0	0	0
	21	1,069	107	0	0	0	3,576	0	643	3,709	3,828	0	0	3,191	0	0	0
	22	2,390	2,475	0	4,355	16	2,586	0	586	2,915	3,039	0	0	2,920	2	18	18
	23	2,574	2,938	0	5,580	2,032	3,048	0	255	3,152	3,061	0	0	2,749	0	0	0
	24	2,762	2,813	0	8,275	2,126	3,052	0	109	3,095	3,117	0	0	2,631	5	23	23
	25	3,005	2,997	0	780	0	3,661	0	638	3,709	3,734	0	0	2,611	0	0	0
	26	2,844	2,933	0	4,097	0	2,745	0	72	2,851	2,881	0	0	2,859	0	0	0
	27	2,987	2,942	0	4,378	0	3,046	0	57	2,801	2,848	0	0	2,633	0	0	0
	28	3,543	2,897	0	3,281	687	3,596	0	285	3,860	3,768	0	0	2,747	0	0	0
	29	2,357	2,812	0	4,419	0	2,589	0	202	2,750	2,688	0	0	2,704	4	0	0
	30	2,746	2,751	0	3,448	0	2,574	0	149	2,735	2,778	0	0	2,762	1	0	0
	Total	34,165	33,962	0	65,335	23,372	77,800	0	7,107	79,845	79,622	0	0	80,430	52	129	116

1/ Values supplied by LADWP, not verified by DWR.

**Table 25. Pyramid Lake**

Daily Operation

Capacity: 171,200 ac-ft

(in acre-feet except as noted)

**November 2004**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow			Outflow				Computed Losses (-) And Gains (+)	
				Project		Natural	Project		Natural	United Water Agency		
				Castaic Powerplant Pumpback 1/	Warne Powerplant	Stream Flow	Castaic Powerplant Generation 1/	Recreation Deliveries	To Piru Creek			
Oct 31	2576.65	168,164										
1	2575.64	166,872	-1,292	1,374	6	13	2,659	0	12	0	-14	
2	2575.54	166,745	-127	1,666	0	12	1,749	0	12	0	-44	
3	2575.56	166,770	25	2,101	0	12	2,134	0	12	0	58	
4	2575.00	166,057	-713	1,592	0	12	2,228	0	12	0	-77	
5	2574.52	165,447	-610	898	0	12	1,507	0	12	0	-1	
6	2575.28	166,413	966	1,123	0	12	139	0	12	0	-18	
7	2575.56	166,770	357	2,226	0	12	1,773	0	12	0	-96	
8	2575.64	166,872	102	1,971	1,017	12	2,895	0	12	0	9	
9	2575.65	166,885	13	1,558	1,172	11	2,698	0	12	0	-18	
10	2575.69	166,936	51	1,578	1,130	11	2,614	0	12	0	-42	
11	2575.62	166,847	-89	1,542	884	11	2,428	0	12	0	-86	
12	2575.36	166,515	-332	882	1,021	11	2,261	0	12	0	27	
13	2575.04	166,108	-407	0	1,036	11	1,442	0	12	0	0	
14	2575.60	166,821	713	0	1,007	11	195	0	12	0	-98	
15	2575.65	166,885	64	0	0	11	0	0	12	0	65	
16	2575.62	166,847	-38	0	0	11	0	0	12	0	-37	
17	2576.04	167,383	536	0	580	11	0	0	12	0	-43	
18	2576.06	167,409	26	0	66	11	0	0	12	0	-39	
19	2576.20	167,588	179	0	212	11	0	0	12	0	-32	
20	2576.30	167,716	128	0	166	11	0	0	12	0	-37	
21	2576.34	167,767	51	0	107	10	0	0	12	0	-54	
22	2574.87	165,892	-1,875	16	2,475	10	4,355	0	12	0	-9	
23	2574.32	165,194	-698	2,032	2,938	10	5,580	0	12	0	-86	
24	2571.66	161,845	-3,349	2,126	2,813	10	8,275	0	12	0	-11	
25	2573.43	164,068	2,223	0	2,997	10	780	0	12	0	8	
26	2572.50	162,898	-1,170	0	2,933	10	4,097	0	12	0	-4	
27	2571.41	161,533	-1,365	0	2,942	10	4,378	0	12	0	73	
28	2571.52	161,670	137	687	2,897	10	3,281	0	12	0	-164	
29	2570.16	159,977	-1,693	0	2,812	10	4,419	0	12	0	-84	
30	2569.57	159,245	-732	0	2,751	10	3,448	0	12	0	-33	
Total				-8,919	23,372	33,962	329	65,335	0	360	0	-887

1/ Values supplied by LADWP, not verified by DWR.

**Table 26. Elderberry Forebay**

Daily Operation

(in acre-feet except as noted)

Capacity: 32,476 ac-ft

**November 2004**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow		Outflow			Computed Losses (-) And Gains (+)	
				Castaic Powerplant Generation 1/	Natural	Castaic Powerplant Pumpback 1/	To Castaic Lake			
							Natural	Project 1/		
Oct 31	1506.45	17,843								
1	1509.70	19,069	1,226	2,659	0	1,374	0	0	-59	
2	1510.25	19,281	212	1,749	0	1,666	0	0	129	
3	1510.00	19,184	-97	2,134	0	2,101	0	0	-130	
4	1511.55	19,786	602	2,228	0	1,592	0	0	-34	
5	1513.25	20,457	671	1,507	0	898	0	0	62	
6	1511.00	19,571	-886	139	0	1,123	0	0	98	
7	1509.65	19,050	-521	1,773	0	2,226	0	0	-68	
8	1512.50	20,159	1,109	2,895	0	1,971	0	0	185	
9	1515.40	21,323	1,164	2,698	0	1,558	0	0	24	
10	1517.70	22,271	948	2,614	0	1,578	0	0	-88	
11	1519.80	23,155	884	2,428	0	1,542	0	0	-2	
12	1508.30	18,536	-4,619	2,261	0	882	0	5,997	-1	
13	1496.80	14,432	-4,104	1,442	0	0	0	5,545	-1	
14	1493.10	13,210	-1,222	195	0	0	0	1,417	0	
15	1493.10	13,210	0	0	0	0	0	0	0	
16	1493.10	13,210	0	0	0	0	0	0	0	
17	1493.00	13,178	-32	0	0	0	0	0	-32	
18	1493.10	13,210	32	0	0	0	0	0	32	
19	1493.10	13,210	0	0	0	0	0	0	0	
20	1493.10	13,210	0	0	0	0	0	0	0	
21	1493.10	13,210	0	0	0	0	0	0	0	
22	1505.63	17,541	4,331	4,355	0	16	0	0	-8	
23	1507.06	18,070	529	5,580	0	2,032	0	0	-3,019	
24	1510.90	19,532	1,462	8,275	0	2,126	0	3,018	-1,669	
25	1504.30	17,055	-2,477	780	0	0	0	4,687	1,430	
26	1507.80	18,347	1,292	4,097	0	0	0	3,258	453	
27	1511.70	19,844	1,497	4,378	0	0	0	2,805	-76	
28	1518.10	22,438	2,594	3,281	0	687	0	2,881	2,881	
29	1516.25	21,671	-767	4,419	0	0	0	5,185	-1	
30	1512.75	20,258	-1,413	3,448	0	0	0	4,860	-1	
Total			2,415	65,335	0	23,372	0	39,653	105	

1/ Values supplied by LADWP, not verified by DWR.

**Table 27. Castaic Lake**

Daily Operation

(in acre-feet except as noted)

Capacity: 323,699 ac-ft

**November 2004**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow		Outflow		Computed Losses (-) And Gains (+)	
				From Elderberry Forebay /1		Natural	Deliveries		
				Natural	Project				
Oct 31	1496.21	283,290							
1	1495.34	281,496	-1,794	1	0	1	1,792	13	
2	1494.43	279,626	-1,870	0	0	1	1,887	0	
3	1493.47	277,662	-1,964	0	0	0	1,924	0	
4	1492.53	275,746	-1,916	0	0	0	1,819	0	
5	1491.57	273,798	-1,948	0	0	0	1,978	0	
6	1490.55	271,737	-2,061	0	0	0	2,117	0	
7	1489.47	269,565	-2,172	0	0	0	2,146	0	
8	1488.42	267,458	-2,107	0	0	1	2,128	0	
9	1487.40	265,421	-2,037	0	0	1	2,085	0	
10	1486.35	263,332	-2,089	0	0	1	2,081	0	
11	1485.33	261,312	-2,020	0	0	1	2,004	0	
12	1487.43	265,481	4,169	0	5,997	1	1,840	0	
13	1489.14	268,902	3,421	0	5,545	1	1,799	0	
14	1488.99	268,601	-301	0	1,417	1	1,752	0	
15	1488.09	266,798	-1,803	0	0	1	1,761	0	
16	1487.22	265,062	-1,736	0	0	1	1,772	0	
17	1486.26	263,154	-1,908	0	0	1	1,877	0	
18	1485.27	261,194	-1,960	0	0	1	1,976	0	
19	1484.18	259,045	-2,149	0	0	1	2,108	0	
20	1483.03	256,788	-2,257	0	0	1	2,223	0	
21	1482.04	254,854	-1,934	0	0	1	1,892	0	
22	1480.96	252,753	-2,101	0	0	1	2,113	0	
23	1481.44	253,686	933	0	0	1	2,007	0	
24	1482.72	256,181	2,495	0	3,018	2	2,015	0	
25	1483.40	257,513	1,332	0	4,687	2	2,026	0	
26	1483.73	258,160	647	0	3,258	2	1,923	0	
27	1484.18	259,045	885	0	2,805	2	1,917	0	
28	1483.17	257,062	-1,983	0	2,881	2	1,823	0	
29	1484.70	260,069	3,007	0	5,185	1	2,025	0	
30	1486.07	262,777	2,708	0	4,860	1	2,053	0	
Total		-20,513		1	39,653	30	58,863	13	
								-1,321	

1/ Values supplied by LADWP, not verified by DWR.

**Table 28. Governor Edmund G. Brown California Aqueduct**  
 Southern Field Division, Monthly Deliveries (West Branch)

(In acre-feet)

**November 2004**

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending					Table A Amount	Rec.	Local	Arvin Edison Water Bank Recovery			
	No.	Structure	Mile							Semitropic Water Bank Recovery		
29A	42	Oso Pumping Plant	1.49		34,165							
29F	W2	Quail Lake	5.02	Antelope Valley-East Kern Water Agency	Re-moved							
		Quail Lake Embankment	7.82	Antelope Valley-East Kern Water Agency	Stub							
29G		Warne Power Plant	14.07		33,962							
29H	W3	Pyramid Lake		Calif. State Park Pyramid Recreation	0							
			14.10	United Water Conservation Dist.	0							
		Pyramid Dam	17.10	Piru Creek Fish Enhancement	0							
29J	W4	Castaic Power Plant	25.82	( 23,372 AF pumpback ) 2/	65,335							
		Elderberry Forebay										
		Forebay Dam	28.12									
30 1/	W5	Castaic Lake		Calif. State Park Castaic Lake Recreation	31		31		31	6,858		
		Castaic Dam	31.47									
		Castaic Lake Outlet	31.55	MWD - 78"	11,095							
				MWD - 132"	44,692							
				Castaic Lake WA - T1	1,500							
				Castaic Lake WA	1,545							
				United Water Conservation Dist.	0							
				MWD - Ventura County FCD	0							
				LA Co. Parks & Recreation	0							
				Releases to Lagoon	13							
				Reach 30 Subtotal:	58,863		51,974	31	0	6,858	0	
	W6	Castaic Lagoon		Recreation to Lagoon	0							
		Castaic Lagoon Outlet	31.87									

1/ Reach 30 actually terminates at mile 31.50. It is shown here as including the outlet works at mile 31.55.

All deliveries from the outlet works and from the Lagoon are billed to Reach 30.

2/ Value supplied by LADWP, not verified by DWR.

**Table 29. Silverwood Lake**

**Daily Operation**

(in acre-feet except as noted)

Capacity: 74,970 ac-ft

**November 2004**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow			Outflow				Computed Losses (-) And Gains (+)	Las Flores Ranch Exchange 1/	
							Project		Del. To Mojave W.A.	Natural To Mojave River			
				Mojave Siphon Power-plant	Mojave Bypass Flume	Natural Stream Flow	Delivered to CLAWA	Rec.					
Oct 31	3352.07	72,140											
1	3352.07	72,140	0	1,957	0	71	5	0	1,954	0	1	-68	
2	3352.55	72,599	459	2,212	0	45	4	0	1,896	0	0	102	
3	3352.52	72,571	-28	1,804	0	37	5	0	1,727	0	1	-136	
4	3352.55	72,599	28	2,308	0	34	5	0	2,405	0	0	96	
5	3352.61	72,657	58	2,870	0	30	4	0	2,715	0	0	-123	
6	3352.69	72,734	77	2,733	0	27	6	0	2,626	0	1	-50	
7	3352.52	72,571	-163	2,115	0	23	6	0	2,397	0	0	102	
8	3352.75	72,791	220	2,730	0	22	6	0	2,796	0	0	270	
9	3352.55	72,599	-192	2,467	0	23	6	0	2,744	0	1	69	
10	3352.58	72,628	29	2,980	0	19	6	1	2,971	0	0	8	
11	3352.44	72,494	-134	2,920	0	17	6	0	2,858	0	153	-54	
12	3352.27	72,331	-163	3,105	0	16	5	0	2,984	0	239	-56	
13	3353.11	73,137	806	3,416	0	15	4	0	2,555	0	238	172	
14	3351.88	71,958	-1,179	1,575	0	15	4	0	2,555	0	239	29	
15	3349.10	69,332	-2,626	369	0	14	5	0	2,851	0	83	-70	
16	3347.72	68,048	-1,284	1,561	0	13	4	0	2,807	0	1	-46	
17	3346.77	67,171	-877	1,996	0	13	5	1	2,920	0	0	40	
18	3346.88	67,272	101	2,826	0	13	5	0	2,947	0	0	214	
19	3345.92	66,392	-880	2,471	0	13	5	0	3,133	0	1	-225	
20	3346.71	67,116	724	3,465	0	13	5	0	2,782	0	0	33	
21	3347.38	67,733	617	3,828	0	21	5	0	3,191	0	1	-35	
22	3347.89	68,205	472	3,039	0	28	5	0	2,920	0	0	330	
23	3348.20	68,493	288	3,061	0	26	4	0	2,749	0	0	-46	
24	3348.70	68,958	465	3,117	0	23	6	0	2,631	0	0	-38	
25	3349.74	69,932	974	3,734	0	23	7	0	2,611	0	1	-164	
26	3349.97	70,148	216	2,881	0	23	6	0	2,859	0	0	177	
27	3350.28	70,440	292	2,848	0	33	6	0	2,633	0	0	50	
28	3351.46	71,558	1,118	3,768	0	58	7	0	2,747	0	1	47	
29	3351.26	71,368	-190	2,688	0	44	6	0	2,704	0	0	-212	
30	3351.32	71,425	57	2,778	0	32	6	0	2,762	0	1	16	
Total				-715	79,622	0	784	159	2	80,430	0	962	432
												696	

1/ Project water delivered from Mojave Siphon in exchange for like amount of Natural Streamflow.

**Table 30. Lake Perris**

Daily Operation

(in acre-feet except as noted)

Capacity: 131,452 ac-ft

**November 2004**

Date	Water Surface Elevation (in feet)	Storage	Storage Change	Inflow 1/	Outflow 2/	Computed Losses (-) Gains (+) 1/
Oct 31	1585.88	122,016				
1	1585.93	122,129	113		10	
2	1586.07	122,446	317		9	
3	1586.29	122,944	498		11	
4	1586.29	122,944	0		10	
5	1586.32	123,011	67		9	
6	1586.30	122,966	-45		10	
7	1586.26	122,876	-90		10	
8	1586.29	122,944	68		9	
9	1586.29	122,944	0		10	
10	1586.26	122,876	-68		10	
11	1586.29	122,944	68		9	
12	1586.32	123,011	67		9	
13	1586.29	122,944	-67		10	
14	1586.21	122,762	-182		9	
15	1586.24	122,830	68		11	
16	1586.18	122,694	-136		9	
17	1586.24	122,821	127		33	
18	1586.26	122,876	55		9	
19	1586.28	122,921	45		10	
20	1586.32	123,011	90		8	
21	1586.35	123,079	68		11	
22	1586.37	123,125	46		11	
23	1586.40	123,193	68		11	
24	1586.51	123,442	249		9	
25	1586.51	123,442	0		9	
26	1586.51	123,442	0		11	
27	1586.51	123,442	0		9	
28	1586.54	123,510	68		10	
29	1586.51	123,442	-68		670	
30	1586.59	123,624	182		884	
<b>Total</b>			1,608	4,621	1,850	-1,163

1/ Readings are not taken on a daily basis. End of month only.

2/ Includes deliveries of 1,850 AF to MWD from Reach 28J.

**Table 31a. Governor Edmund G. Brown California Aqueduct**  
 Southern Field Division, Monthly Deliveries (East Branch)

(In acre-feet)

**November 2004**

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending					Table A Amount	Rec.	Transfer	Purchase Pool A	Transfer Local Out		
	No.	Structure	Mile									
17E	40	Edmonston Pumping Plant	293.45		118,938							
	41		298.65			Kern County Water Agency Tej.-Cas		Stub				
17F		Check No. 41	303.41									
18A	42	Check No. 42	304.99									
19	43	Alamo Powerplant	305.73	(Does not include 7,107 AF flow down Cottonwood Chute)	77,800							
			308.05	Antelope Valley-East Kern WA	0							
		Check No. 43	309.70									
	44		311.84	LADWP Connection	0							
			313.50	AVEK 245th Street West	0							
	Check No. 44		314.81									
	45		314.93	AVEK 235th Street West	0							
			315.57	AVEK 225th Street West	0							
	Check No. 45		319.74									
	46		323.19	Antelope Valley-East Kern WA Fairmont	267		267	44	0	0		
				Mojave Water Agency Fairmont	44							
		Check No. 46	323.84									
				Reach 19 Total:	311							
20A	47	Check No. 47	326.77									
	48		326.91	Antelope Valley-East Kern WA Willow Springs Siphon	0							
			329.65	Antelope Valley-East Kern WA 120th Street West	Removed							
		Check No. 48	330.82									
	49	Check No. 49	335.93									
	50		336.73	AVEK WA - Quartz Hill (Wheeled for Palmdale WD)	0		1,394	17	0	0		
				Antelope Valley-East Kern WA	1,394							
			339.68	Antelope Valley-East Kern WA	17							
20B	Check No. 50		341.51									
	51	Check No. 51	342.07									
	52		342.80	Antelope Valley-East Kern WA	Not in Use							
			343.30	Antelope Valley-East Kern WA Temporary 12	4							
		Check No. 52	343.74									
	53		346.98	PWD Palmdale	383		383	88	0	0		
				Antelope Valley-East Kern WA Acton Treatment Plant	88							
21	Check No. 53		348.17									
	54	Check No. 54	350.25									
	55	Check No. 55	352.70									
	56	Check No. 56	354.76									
			354.97	Littlerock Creek I.D.	0							
22A	57	Check No. 57	356.93									
	58		357.60	Antelope Valley-East Kern WA	0							
			357.72	Antelope Valley-East Kern WA 96th Street East	0							
			359.82	Antelope Valley-East Kern WA East Side Treatment Plant	159							

**Table 31b. Governor Edmund G. Brown California Aqueduct**

Southern Field Division, Monthly Deliveries (East Branch, Continued)

(In acre-feet)

**November 2004**

Reach No.	Operating Pool			Turnout	Total Diversions	Deliveries						
	Beginning and Ending					Table A Amount	Rec.	Other	Arvin Edison Water Bank Recovery			
	No.	Structure	Mile						Semotropic Water Bank Recovery	Arvin Edison Water Bank Recovery		
22B	58	Pearblossom Pumping Plant	360.61		79,845	224	2/ 789	1/ 696	3/ 37	15,668		
	59	Check No. 59	366.09									
	60		366.50	Antelope Valley-East Kern WA	0							
		Check No. 60	373.94									
	61	Check No. 61	379.00									
	62	Check No. 62	384.26									
	63	Check No. 63	389.20	Mojave Water Agency Mojave River	1,013							
			394.60	Mojave Water Agency Temporary	0							
	64	Check No. 64	395.10									
	65	Check No. 65	400.32									
	66		401.10	Mojave Water Agency Morongo 24" and 42"	496							
				Mojave Water Agency Hesperia	0							
23	Check No. 66	403.41										
	Mojave Siphon	405.48		Las Flores Ranch	696							
24		Mojave Siphon Powerplant	405.65		79,622	122	2	1/ 696	3/ 37	15,668		
Silverwood Lake	407.65		Crestline Lake Arrowhead Water Agency	159								
			25								Calif. State Park Silverwood Agency (Rec.)	2
San Bernardino Tunnel Intake	407.70			80,430								
26A	Devil Canyon Powerplant	412.73			80,430	15,901	2,006	1,194	1,737	12,897		
	Devil Canyon Afterbay Control Structures		412.88	MWD-SC Rialto	31,569							
				Desert Water Agency (MWD Wheeling Exchange)	2,006							
				MWD-SC T290	1,194							
				San Gabriel Valley Water District	0							
				Coachella Valley WD (MWD Wheeling Exchange)	1,737							
				San Bernardino Valley MWD 24" and 72"	0							
				San Bernardino Valley MWD 48"	0							
				MWD (SBVMWD Exchange) T291	12,897							
				San Gorgonio Pass Water Agency	58							
28G	Santa Ana Valley Pipeline	425.46										
28H		433.06		MWD-SC Box Springs	4,604	4,604	22,703	527	1,035	15,668		
28J		440.05		MWD-SC Perris Bypass Pipeline	22,703							
28J	Lake Perris	442.00		MWD-SC 18"	288	111,821	0	0	6858	15,668		
		443.44		MWD-SC 54"	527							
				MWD-SC 78"	1,035							
				Calif. State Park Lake Perris Recreation	0							
				MWD Total:	134,347							

1/ Project water delivered from Mojave Siphon in exchange for like amount of Natural Streamflow.

2/ Entitlement exchanged with Solano WA.

3/ Local

**Table 32. Water Quality At Selected SWP Locations**

November 2004

Constituent	Units	Thermalito Afterbay At Outlet	North Bay Aqueduct Barker Slough Pumping Plant	Banks Pumping Plant	Delta Mendota Canal At McCabe Rd.	California Aqueduct				Devil Canyon Afterbay Near San Bernardino
						O'Neill Forebay Outlet (Check 13)	Kettleman City (Check 21)	Near Hwy 119 (Check 29)	Tehachapi Afterbay (Check 41)	
Alkalinity	mg/l as CaCO <sub>3</sub>	51	88	79	72	82	84	86.5	93	84
Antimony	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NR	NR
Arsenic	mg/l	<0.001	0.002	0.002	0.002	0.002	0.003	0.004	0.004	0.004
Beryllium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Boron	mg/l	<0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1
Bromide	mg/l	<0.01	0.02	0.13	0.11	0.11	0.19	0.16	0.14	0.15
Calcium	mg/l	9	16	20	16	19	19	24	24	22
Carbon - Dissolved Organic	mg/l as C	NR	3	4	4	4	3	3	2	3
Carbon - Total Organic	mg/l as C	NR	4	4	4	4	4	3	2	3
Chloride	mg/l	1	20	69	61	69	94	77	76	75
Chromium	mg/l	<0.001	0.001	0.002	0.003	0.003	0.004	0.004	0.004	0.003
Copper	mg/l	<0.001	0.002	0.002	0.002	0.002	0.006	0.002	0.002	0.002
Fluoride	mg/l	<0.1	0.1	<0.1	0.1	0.1	<0.1	0.1	0.1	0.1
Hardness	mg/l as CaCO <sub>3</sub>	39	89	103	85	97	103	98	105	96
Iron	mg/l	<0.005	0.016	0.019	0.016	<0.005	<0.005	<0.005	<0.005	<0.005
Lead	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Magnesium	mg/l	4	12	13	11	12	13.5	9.5	11	10
Manganese	mg/l	<0.005	0.017	0.018	<0.005	<0.005	<0.005	<0.005	<0.005	0.008
Nitrate + Nitrite	mg/l as N	0.01	0.50	0.82	NR	1.00	0.77	1.10	1.09	0.80
Phosphorus-Ortho	mg/l as P	<0.01	0.08	0.07	NR	0.08	0.06	0.04	0.04	0.06
Phosphorus-Total	mg/l	0.01	0.15	0.10	NR	0.07	0.06	0.09	0.05	0.07
Selenium	mg/l	<0.001	<0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.002
Sodium	mg/l	4	21	51	41	47	58.5	56.5	57	54
Specific Conductance	µS/cm	100	257	442	412	458	542	556	520	504
Sulfate	mg/l	2	17	30	27	36	33.5	40	37	35
Total Dissolved Solids	mg/l	55	144	248	228	255	302.25	316.75	289	274
Turbidity	NTU	3	35	5	8	3	2	3	2	2
Zinc	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

mg/l milligrams per liter

µg/l micrograms per liter

µS/cm microSiemens per centimeter

NR - Not Reported

NTU - nephelometric turbidity units

**Table 33. Water Quality At Selected Delta Stations**

**November 2004**

Date	Antioch Tides (feet above mean sea level)		Flow In CFS		Rio Vista	Electrical Conductivity in milliSiemens/cm								Cl in mg/l	
			Net Delta Outflow Index			Antioch	Chipps Island	Emmaton		Jersey Point		Clifton Court	Cache Slough	Delta Mendota Canal	
	Highest High Tide	Actual High Half Tide	Mean Daily	Monthly Average		md	md	md	14dm	md	14dm	md	md	md	
1	2.62	0.99	7,282	7,282	8,057	2.72	7.97	0.76	1.44	0.92	1.16	0.44	0.76	0.45	150
2	2.56	0.98	5,678	6,480	6,887	3.03	7.89	0.77	1.24	0.93	1.08	0.45	0.78	0.45	160
3	2.47	1.20	3,620	5,527	6,351	3.21	8.75	0.81	1.13	0.95	1.03	0.43	0.78	0.45	155
4	1.90	0.95	8,228	6,202	7,384	2.88	7.63	0.69	1.05	0.87	1.00	0.44	0.83	0.44	140
5	2.19	1.00	7,351	6,432	7,515	3.39	9.12	1.01	1.02	0.89	0.99	0.41	0.83	0.43	140
6	2.41	1.14	9,650	6,968	8,443	4.10	10.33	1.23	1.02	0.96	0.98	0.40	0.76	0.43	140
7	2.46	1.13	8,367	7,168	7,411	4.53	11.22	1.43	1.03	1.02	0.98	0.38	0.74	0.43	140
8	2.68	1.12	7,759	7,242	7,397	4.75	11.76	1.53	1.04	1.09	0.98	0.40	0.77	0.46	140
9	2.74	1.01	3,292	6,803	5,647	4.67	11.10	1.51	1.04	1.10	0.98	0.39	0.79	0.49	135
10	2.91	1.01	2,656	6,388	5,472	4.80	11.15	1.72	1.07	1.18	0.99	0.39	0.79	0.49	135
11	3.28	1.18	3,174	6,096	5,682	5.22	11.47	2.02	1.14	1.34	1.01	0.39	0.76	0.49	135
12	3.43	1.21	9,591	6,387	7,722	5.00	11.47	1.89	1.21	1.35	1.04	0.41	0.38	0.54	130
13	3.59	1.28	9,923	6,659	7,918	5.03	11.30	1.87	1.28	1.29	1.06	0.42	0.50	0.54	140
14	3.45	1.25	10,933	6,965	8,364	4.87	10.79	1.86	1.36	1.43	1.09	0.48	0.56	0.54	130
15	3.60	1.26	10,529	7,202	8,394	4.84	10.95	2.03	1.45	1.50	1.14	0.48	0.62	0.54	140
16	3.40	1.30	9,587	7,351	7,909	4.91	10.85	2.04	1.55	1.48	1.17	0.50	0.66	0.54	140
17	3.00	1.17	3,757	7,140	6,187	4.15	10.32	1.87	1.62	1.38	1.21	0.51	0.71	0.56	115
18	2.43	0.87	3,919	6,961	6,139	4.19	9.54	1.61	1.69	1.23	1.23	0.51	0.76	0.57	115
19	2.22	0.74	4,131	6,812	5,848	3.78	9.15	1.27	1.71	1.10	1.25	0.50	0.79	0.58	115
20	2.07	0.55	4,218	6,682	5,454	3.61	9.00	1.16	1.70	1.05	1.25	0.50	0.82	0.55	110
21	2.14	0.40	3,990	6,554	5,394	2.98	8.34	0.76	1.65	1.00	1.25	0.46	0.84	0.56	110
22	2.59	0.66	3,487	6,415	5,061	3.52	9.75	1.35	1.64	1.17	1.26	0.45	0.84	0.56	105
23	2.72	0.73	3,454	6,286	4,708	3.93	10.23	1.56	1.64	1.20	1.26	0.47	0.82	0.56	110
24	2.74	0.69	3,354	6,164	4,623	4.07	10.42	1.65	1.64	1.19	1.27	0.47	0.83	0.56	105
25	2.95	0.86	3,733	6,067	4,590	4.40	10.82	1.76	1.62	1.25	1.26	0.49	0.81	0.56	100
26	3.03	0.93	3,956	5,985	4,378	4.54	10.82	1.95	1.62	1.27	1.25	0.50	0.81	0.56	105
27	3.56	1.46	3,932	5,909	4,396	5.23	12.25	2.52	1.67	1.63	1.28	0.52	0.80	0.55	110
28	2.75	0.94	5,486	5,894	5,632	3.78	9.61	1.20	1.62	1.15	1.26	0.49	0.58	0.56	105
29	2.54	0.59	6,536	5,916	6,882	3.26	8.69	1.25	1.57	1.07	1.23	0.57	0.60	0.63	105
30	2.54	0.68	5,304	5,896	6,567	1.77	8.95	1.26	1.51	1.10	1.20	0.55	0.63	0.59	100

**Table 34. Pesticides, Herbicides, and Other Organic Substances Detected In the SWP**

**November 2004**

Sampling Location	Sample Date 1/	Chemical Detected	Concentration µg/l 2/
North Bay Aqueduct At Barker Slough Pumping Plant	September 15, 2004	None Detected	
California Aqueduct At Banks Pumping Plant	September 15, 2004	2,4-D	0.20
O'Niell Forebay Outlet Check 13	September 15, 2004	2,4-D	0.1
Delta Mendota Canal At McCabe Road	September 15, 2004	2,4-D	0.3
California Aqueduct Near Kettleman City (Check 21)	September 15, 2004	2,4-D	0.2
California Aqueduct At Near Highway 119 (Check 29)	September 15, 2004	2,4-D	0.1
California Aqueduct at Devil Canyon Headworks	September 15, 2004	2,4-D	0.1
California Aqueduct At Tehachapi Afterbay (Check 41)	September 15, 2004	None Detected	

1/ Locations are normally sampled during March, June, and September. Monthly reports will include data for the month in which samples were most recently taken.

2/ Micrograms per liter.

**Table 35. Oroville and Delta Field Divisions Energy Data**

(in kWh)

**November 2004**

Date	Oroville Thermalito Complex		Barker Slough Pumping Plant	Cordelia Pumping Plant Load	Banks Pumping Plant		South Bay Pumping Plant Load	Del Valle Pumping Plant Load
	Generation	Load			Total Load	SWP Load		
1	4,366,944	3,168	24,423	22,778	2,264,448	2,264,448	86,210	177
2	3,812,544	0	34,195	29,624	2,387,328	2,387,328	109,915	170
3	4,307,904	288	32,613	35,462	2,889,984	2,889,984	110,750	147
4	3,707,712	0	27,517	28,567	2,831,424	2,831,424	107,785	128
5	5,233,824	0	32,186	33,257	2,984,640	2,984,640	107,135	133
6	1,135,008	0	34,216	35,686	2,314,176	2,314,176	107,960	145
7	2,768,256	0	29,540	31,605	2,727,360	2,727,360	107,700	143
8	4,468,608	0	28,343	31,409	2,888,064	2,888,064	109,680	144
9	4,379,328	0	28,686	28,931	2,888,448	2,888,448	110,160	129
10	4,167,072	288	27,958	28,112	2,774,976	2,774,976	107,700	122
11	3,210,048	0	33,551	34,090	1,992,000	1,992,000	85,810	130
12	3,646,080	0	31,864	35,175	2,512,896	2,512,896	113,780	144
13	1,708,992	0	24,213	25,242	2,553,408	2,553,408	125,620	143
14	2,269,728	0	26,411	29,239	2,557,056	2,557,056	139,270	144
15	3,027,168	0	29,106	31,990	2,714,496	2,714,496	126,650	145
16	4,522,464	0	27,909	27,867	2,693,760	2,693,760	145,590	159
17	4,544,352	0	34,762	33,943	2,652,480	2,652,480	139,830	166
18	4,275,360	0	30,709	29,939	2,548,992	2,548,992	145,420	153
19	3,664,224	0	30,968	32,900	1,904,448	1,904,448	177,885	153
20	1,511,136	0	27,188	29,813	1,646,016	1,646,016	178,050	156
21	3,408,768	0	28,476	31,976	2,023,488	2,023,488	178,730	165
22	3,642,048	0	27,874	31,472	1,646,784	1,646,784	176,395	165
23	4,353,984	0	33,026	35,602	1,384,704	1,384,704	171,135	165
24	4,011,840	288	33,453	36,764	1,330,368	1,330,368	239,260	165
25	3,559,968	288	33,467	34,699	698,688	698,688	242,115	173
26	3,314,880	0	30,156	33,243	844,992	844,992	304,970	180
27	2,601,792	288	27,041	35,098	858,432	858,432	296,365	179
28	3,082,752	6,912	25,564	30,177	843,264	843,264	306,430	179
29	5,455,296	0	31,444	35,448	2,597,952	2,597,952	313,100	180
30	4,449,024	0	30,338	34,237	2,078,976	2,078,976	313,710	180
Total	108,607,104	11,520	897,197	954,345	65,034,048	65,034,048	4,985,110	4,662

**Table 36. San Luis Field Division Energy Data**

(in kWh)

November 2004

Date	Dos Amigos Pumping Plant		Gianelli Pumping-Generating Plant			
	Total Load	SWP Load 1/	Total Generation	SWP Generation 1/	Total Load	SWP Load 1/
1	431,856	431,856	0	0	3,067,776	1,690,776
2	65,088	65,088	0	0	3,476,160	2,099,160
3	257,328	257,328	0	0	3,878,496	2,060,496
4	350,640	350,640	0	0	2,404,800	586,800
5	412,272	412,272	0	0	2,998,368	1,180,368
6	349,920	349,920	0	0	4,764,672	2,946,672
7	293,328	293,328	0	-315,000	4,821,696	2,325,696
8	282,384	282,384	0	0	3,982,464	2,164,464
9	365,040	365,040	0	0	3,608,640	1,986,640
10	617,040	617,040	50,976	50,976	3,011,328	1,487,328
11	495,792	495,792	0	0	2,960,928	1,436,928
12	472,752	472,752	0	0	2,228,256	410,256
13	600,192	600,192	0	0	3,599,424	1,995,424
14	498,672	498,672	0	0	4,116,960	980,960
15	112,176	112,176	54,144	54,144	1,907,136	584,136
16	224,640	224,640	0	0	3,919,680	2,101,680
17	265,536	265,536	0	0	3,902,688	2,084,688
18	435,600	435,600	0	0	3,178,080	1,360,080
19	459,216	459,216	0	0	3,182,112	1,364,112
20	695,664	695,664	0	0	3,932,928	2,212,928
21	825,264	825,264	0	0	4,235,904	563,904
22	618,912	618,912	0	0	1,465,056	-9,944
23	1,023,408	1,023,408	1,124,640	1,124,640	1,713,024	-6,976
24	1,134,864	1,134,864	1,612,512	1,612,512	1,767,744	-50,256
25	1,269,504	1,269,504	1,218,240	1,218,240	1,962,144	144,144
26	603,504	603,504	592,128	592,128	1,800,864	-17,136
27	970,992	970,992	648,288	648,288	1,709,280	-10,720
28	976,896	976,896	0	0	3,638,016	-33,984
29	892,368	892,368	1,126,944	1,126,944	1,449,792	-25,208
30	878,544	878,544	137,664	137,664	2,224,224	-34,776
Total	16,879,392	16,879,392	6,565,536	6,250,536	90,908,640	33,578,640

1/ Negative values may appear in SWP columns and indicate a mismatch of scheduled CVP energy and actual pumping; adjustments to SWP water shares are made to balance the mismatch.

**Table 37. San Joaquin Field Division Pumping Plant Energy Load Data**

(in kWh)

November 2004

Date	Coastal Branch					California Aqueduct			
	Las Perillas	Badger Hill	Devils Den	Bluestone	Polonio	Buena Vista	Teerink	Chrisman	Edmonston
1	6,142	14,384	47,050	44,905	47,530	698,184	823,248	1,824,768	6,952,320
2	10,812	28,320	64,370	59,870	65,035	484,056	604,584	1,343,808	4,889,520
3	6,926	17,920	45,960	43,965	46,695	410,976	484,128	1,093,536	3,927,600
4	7,196	18,240	62,215	58,835	62,835	622,080	734,040	1,636,128	6,226,560
5	7,282	18,064	53,985	52,640	53,800	690,480	765,648	1,738,656	6,273,360
6	7,930	20,808	63,835	60,310	63,340	621,360	743,472	1,662,624	6,266,880
7	6,508	17,816	66,195	60,445	66,255	535,320	600,336	1,347,552	5,240,160
8	3,760	9,784	30,260	28,560	31,190	802,872	1,029,600	2,302,560	8,307,360
9	1,460	2,864	18,790	18,960	23,235	812,592	963,648	2,160,576	7,822,800
10	518	616	6,120	5,875	6,285	953,352	1,083,600	2,418,048	9,115,200
11	466	608	1,475	1,460	1,525	919,944	1,083,240	2,448,864	8,974,080
12	124	600	1,720	1,385	1,555	968,688	1,112,472	2,496,096	9,321,840
13	248	400	1,785	1,445	1,545	1,087,776	1,220,688	2,788,992	10,160,640
14	190	0	1,665	1,450	1,505	917,136	1,056,312	2,361,312	8,763,840
15	702	232	1,875	1,475	1,545	220,608	306,504	670,464	2,363,760
16	700	712	495	415	405	407,592	487,944	1,123,776	4,463,280
17	706	680	0	0	0	455,760	567,144	1,249,920	4,123,440
18	2,894	5,632	0	0	0	718,200	839,808	1,854,144	7,140,960
19	3,482	8,168	0	0	0	641,808	783,000	1,717,920	5,957,280
20	3,506	7,848	0	0	0	826,344	968,472	2,101,536	8,155,440
21	3,346	7,992	0	0	0	1,236,168	1,474,416	3,303,648	11,959,200
22	4,388	10,320	0	0	0	1,312,344	1,504,368	3,397,536	12,628,800
23	6,286	16,480	0	0	0	1,371,960	1,576,944	3,533,184	13,293,360
24	8,754	21,784	0	0	0	1,403,640	1,606,392	3,616,992	13,371,120
25	6,978	18,904	0	0	0	1,740,672	1,971,072	4,433,472	16,675,920
26	5,768	14,160	0	0	0	1,320,048	1,542,096	3,471,264	12,879,360
27	5,784	15,576	0	0	0	1,396,800	1,634,976	3,685,248	13,728,960
28	7,508	18,440	0	0	0	1,749,168	2,016,576	4,495,968	16,747,920
29	4,336	11,504	381,495	130	749,080	1,191,744	1,420,992	3,131,424	11,674,800
30	6,032	14,704	49,960	45	0	1,332,432	1,512,144	3,359,520	12,360,240
Total	130,732	323,560	899,250	442,170	1,223,360	27,850,104	32,517,864	72,769,536	269,766,000

**Table 38. Southern Field Division Energy Data**

(in kWh)

**November 2004**

Date	West Branch			East Branch						
	Oso Pumping Plant Load	Warne Powerplant Generation	Castaic SWP Generation	Alamo Powerplant Generation	Pearblossom Pumping Plant Load	Devil Canyon Powerplant Generation	Mojave Siphon Powerplant Generation	Cherry Valley Pumping Plant	Crafton Hills Pumping Plant	Green Spot Pumping Plant
1	161,672	3,816	0	252,056	1,400,592	2,418,624	146,706	926	7,241	9,501
2	7,784	0	0	242,004	1,416,096	2,265,024	166,677	1,155	10,651	8,846
3	7,504	0	0	198,436	1,157,652	2,120,160	137,130	1,006	10,713	8,895
4	7,560	0	0	260,232	1,673,604	2,934,432	179,718	1,197	10,654	9,030
5	7,336	0	0	255,192	1,794,204	3,287,232	222,894	703	10,242	8,935
6	6,720	0	0	259,924	1,744,092	3,199,200	211,638	438	492	792
7	6,496	0	0	279,524	1,843,212	2,944,704	161,322	439	475	845
8	155,568	599,256	960,000	307,216	1,591,884	3,365,280	210,777	494	490	536
9	199,864	686,232	960,000	279,244	1,636,128	3,300,864	191,499	476	486	488
10	226,912	655,776	960,000	308,980	1,981,872	3,539,808	236,061	504	316	617
11	227,416	528,264	960,000	305,032	1,948,308	3,359,904	232,155	544	456	604
12	272,440	601,992	960,000	325,752	2,044,404	3,544,320	248,115	508	463	595
13	271,880	610,200	960,000	371,056	2,290,500	3,108,864	271,341	443	462	579
14	590,128	617,688	960,000	200,312	880,968	3,064,320	111,678	441	461	506
15	6,664	0	0	118,608	657,984	3,427,008	27,111	816	475	472
16	6,944	0	0	222,432	1,017,984	3,379,968	118,335	1,022	469	474
17	7,952	338,760	0	214,200	1,272,900	3,472,608	161,469	1,059	6,638	4,990
18	8,960	39,528	0	363,608	1,987,404	3,476,256	230,370	1,017	469	1,034
19	8,008	128,448	0	321,188	1,628,952	3,656,160	204,792	1,010	13,877	11,084
20	8,120	100,872	0	404,880	2,590,332	3,356,448	286,755	427	478	1,287
21	283,696	65,952	0	410,732	2,499,984	3,738,336	307,734	503	656	1,343
22	630,560	1,422,504	2,880,000	304,136	1,982,448	3,488,064	241,416	837	15,781	12,244
23	679,168	1,656,000	2,880,000	357,532	2,127,792	3,302,976	242,886	985	616	1,353
24	728,336	1,604,808	2,880,000	359,044	2,100,012	3,157,056	252,294	1,059	19,129	15,095
25	795,872	1,679,904	20,160,000	422,940	2,513,328	3,168,000	301,980	526	492	1,334
26	752,864	1,653,840	2,880,000	318,388	1,972,236	3,420,576	229,803	481	498	1,310
27	786,856	1,657,080	2,880,000	358,512	1,901,100	3,185,952	223,755	435	485	1,357
28	934,976	1,636,632	2,880,000	416,388	2,605,572	3,325,248	298,158	476	674	1,317
29	629,832	1,601,856	2,880,000	300,132	1,885,728	3,269,184	207,816	1,026	833	1,517
30	728,896	1,556,784	2,880,000	297,612	1,859,184	3,365,760	218,274	713	795	1,607
Total	9,146,984	19,446,192	49,920,000	9,035,292	54,006,456	96,642,336	6,280,659	21,666	115,967	108,587